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ABSTRACT

This is the annual evaluation report of the Title VII components of the Milwaukee Bilingual/Bicultural Education Program funded by Title I and Title VII of the Elementary and Secondary Education Act of 1967 and the Milwaukee Public Schools. The results of the 1975-76 assessment of pupil progress toward achievement of the program's academic and affective goals in elementary and secondary schools are detailed. It includes observations by parents, teachers, administrators, and the Educational Resource Team. Standardized test results indicate the goal of grade level progress was achieved at kindergarten, lower and upper primary in readiness, English reading, and mathematics when Bilingual Program performance was compared with national norms and Title I or Spanish-surnamed comparison groups. Half-day kindergarten children reached the same achievement level as those in full-day classes. Equivalent progress was not demonstrated at middle primary, the level at which many pupils were introduced to reading in their second language. At upper primary, Bilingual Program achievement exceeded that of the Title I Reading and Mathematics Programs. In addition, Spanish reading achievement was high. Both bilingual and comparison pupils tested positive on a self-concept test. A sample of students indicated positive attitudes toward Mexican and Puerto Rican cultures and a high level of cultural knowledge. Career Orientation, Bilingual Typing, and English for Latinos were innovative secondary school courses. Secondary students endorsed bilingual education. Teachers and parents gave the program high ratings in meeting the goals of grade level achievement and improved student self-esteem. Suggestions for program improvement were made. (RC)

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ABSTRACT

In 1975-1976, ESEA Title VII initiated a four-year project to fund the expansion of the Milwaukee Bilingual Education Program. This support supplemented the locally-funded program in serving 1,112 pupils in five elementary and secondary schools.

A "developmental" system of bilingual education enabled pupils to learn all subject content in both English and Spanish from kindergarten through twelfth grade in an Hispanic cultural context. The bilingual/bicultural teaching and supervisory staff developed curricula to implement program goals aiming to educate students to feel at home in both languages and cultures and to acknowledge their ethnic heritage with pride.

Based on standardized test results, the goal of grade level progress was achieved at kindergarten, lower and upper primary in readiness, English reading, and mathematics when Bilingual Program performance was compared with national norms and Title I or Spanish-surnamed comparison groups. Half-day kindergarten children reached the same achievement level as those in full-day classes. Equivalent progress was not demonstrated at middle primary, the level at which many pupils were introduced to reading in their second language.

At upper primary, Bilingual Program achievement exceeded that of the Title I Reading and Mathematics Programs. In addition, Spanish reading achievement was high. About 73 percent of pupils were reading in both languages.

Both bilingual and comparison pupils tested "positive" on a test of self-concept. A sample of pupils indicated positive attitudes toward Mexican and Puerto Rican cultures and a high level of cultural knowledge.

Career Orientation, Bilingual Typing, and English for Latinos were innovative secondary school courses. Although scheduling difficulties interfered with program operation across all schools, pre/post tests provided clear evidence of program effectiveness except in English for Latinos at the junior high level. Spanish for Spanish Speakers, locally-funded but basic to the secondary program, was effective in improving Spanish reading, writing, and speaking, according to test data.

Secondary students endorsed bilingual education. Teachers and parents gave the program high ratings in meeting the goals of grade-level achievement and improved student self-esteem. Teachers, supervisors, and the Educational Resource Team offered many suggestions for program improvement.

MILWAUKEE PUBLIC SCHOOLS
Milwaukee, Wisconsin

BILINGUAL/BICULTURAL EDUCATION PROGRAM
PROGRAMA DE EDUCACION BILINGUE/BICULTURAL
1975 - 1976

Division of Planning
and Long-Range Development

Department of Educational Research
and Program Assessment

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PREFACE

This is the annual evaluation report of the Title VII components of the Milwaukee Bilingual/Bicultural Education Program funded by Title I (60-115) and Title VII (S0203SA) of the Elementary and Secondary Education Act of 1967 and the Milwaukee Public Schools.

The report covers the results of the 1975-1976 assessment of pupil progress toward achievement of the program's academic and affective goals in elementary and secondary schools. It includes observations by parents, teachers, administrators, and the Educational Resource Team.

Data are presented descriptively in the body of the report and tabled in detail in the Appendix.

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ABBREVIATIONS

Title I = Title I of the Elementary and Secondary Education Act

Title VII = Title VII of the Elementary and Secondary Education Act, Bilingual Education

MPS = Milwaukee Public Schools

TOBE = Tests of Basic Experiences

MRT = Metropolitan Readiness Tests

MAT = Metropolitan Achievement Tests

X = Bilingual Program group

C = Comparison group

K = Kindergarten

LP = Lower Primary (first grade)

MP = Middle Primary (second grade)

UP = Upper Primary (third grade)

Sem = Semester

N = Number of pupils

$\bar{x}$ = Mean (average) score

SD = Standard Deviation (Average dispersal of scores above and below the mean)

t = A measure of the probability that the difference between scores is not due to chance

R^2 = A measure of the contribution of a particular factor (age, for example) to the group total score

Fig. = Figure

Introduction

INTRODUCTION

Since Congressional passage of the Bilingual Education Act in 1968, Title VII has provided seed money to initiate special programs for Hispanic pupils in Milwaukee. The program started in 1969-1970 with Title VII funding of two grade levels at two elementary schools and one subject content area at two secondary schools. An additional bilingual grade level and at least one secondary subject were added with Title VII support at the beginning of each year, and the Milwaukee Public Schools assumed support for the established bilingual classes. From 1969 to 1976, ESEA Title I furnished classroom aides and Reading Center teachers. In addition to providing ongoing financial support, the Milwaukee Board of School Directors endorsed a developmental bilingual/bicultural education program as official policy in 1974. By the end of 1975, bilingual/bicultural education components were available in 15 schools and served 1,212 students during the school year.

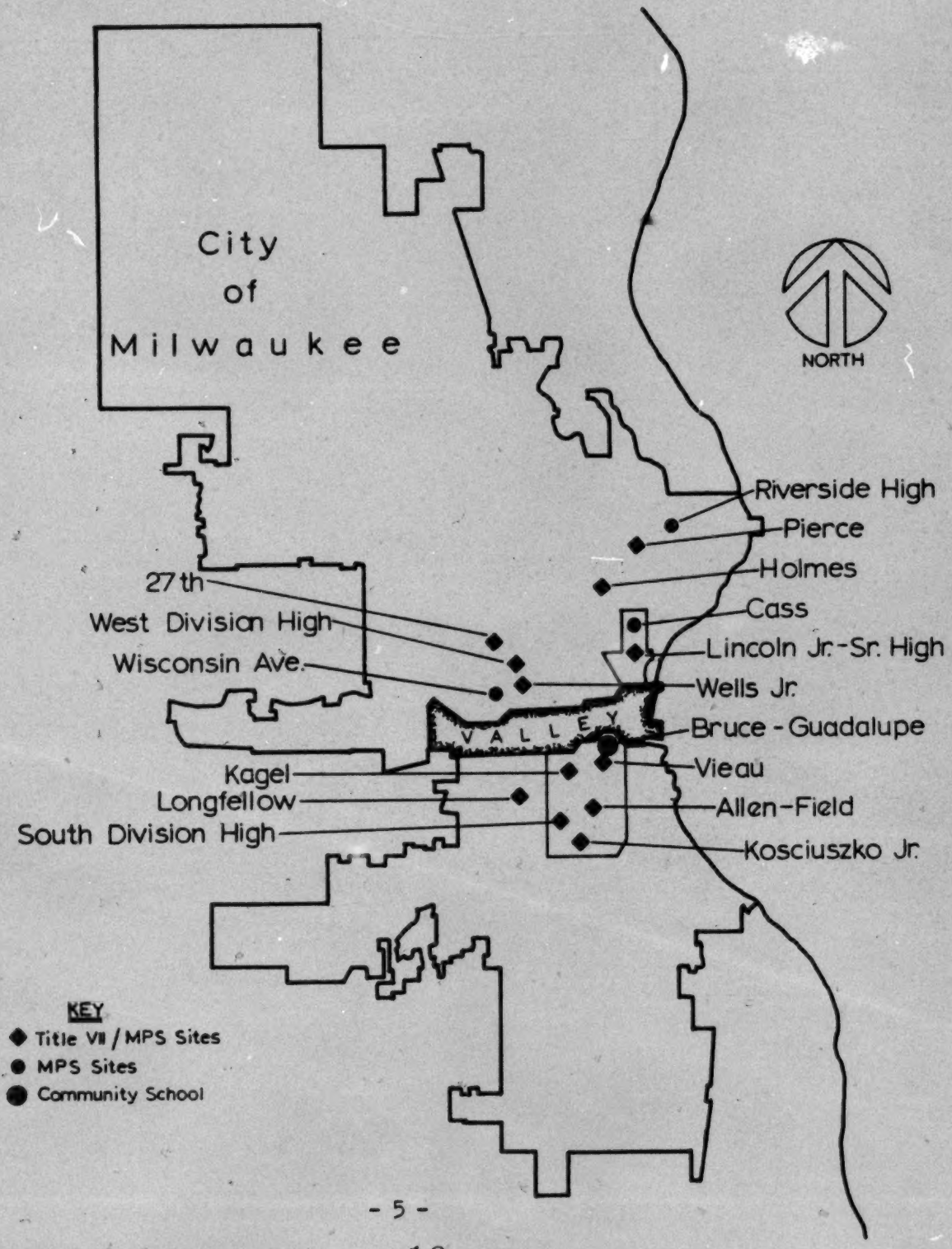
Two high schools, one junior/senior high, two junior highs, seven public and one non-public elementary school received ESEA Title VII support in Milwaukee during 1975-1976. This funding launched a four-year project of Bilingual Program education in eight elementary schools, kindergarten through grade three, and three innovative courses at the secondary school level.

The four-year project initiated in 1975-1976 strengthened existing bilingual classes at all levels by providing curriculum materials, teacher training, evaluation, school liaison with parent/community, and personnel for innovative

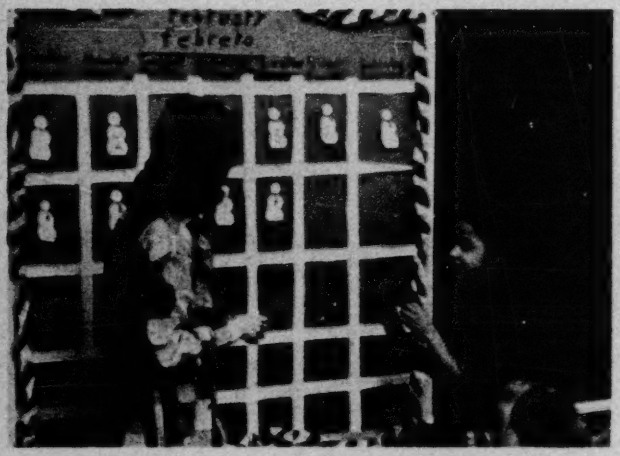
components. Figure 1 illustrates present program locations. Table 1 traces program growth from 1969 through 1975-1976. Table 2 presents budget and funding data.

A court-ordered desegregation plan to be implemented in 1976-1977 will permit the Bilingual Program to remain intact in response to the special needs of the Latin community. It is possible that bilingual education will be expanded to include additional languages and to become a specialty program which would promote integration by attracting interested students from the city and suburbs to a central location.

figure 1. LOCATION OF SCHOOLS HAVING BILINGUAL PROGRAMS



Program Description



PROGRAM DESCRIPTION

Curriculum

From its beginning in 1969, Milwaukee has had a developmental bilingual program, one in which proficiency in both English and Spanish is the long-term goal. This is in contrast to the alternative transitional bilingual program often followed elsewhere wherein Spanish is used only to facilitate the transition to English and the student's absorption into the regular school program. In the developmental design, all curriculum offerings are taught in both languages. The student learns his initial reading skills in his dominant language. After the student has reached a functional reading level in his first language and acquired sufficient comprehension and speaking skills in his second language, he begins to read in the second language. The switch to second-language reading usually occurs at lower or middle primary for pupils who enter the program in kindergarten or lower primary. For older students, it is dependent on many factors. The crucial factors appear to be the entering reading level in the dominant language and the student's motivation. As a second language, English, being the language of the general environment, is generally acquired faster than Spanish. During the summers, bilingual staff members have developed Spanish versions of the regular curricula within a framework of Spanish culture. The new secondary subjects, Bilingual Typing, Career Orientation, and English for Latinos, have no parallel anywhere. Teachers guides and curriculum materials were written to fill program needs and revised when necessary according

to experience with the unique curricula.

Program growth since 1969 is detailed in Table 1. Table 2 presents annual budgets and funding sources.

TABLE 1

SCHOOLS, PROGRAM COMPONENTS, AND POPULATION
BILINGUAL EDUCATION PROGRAM, 1969-1976

School Year	Title VII Schools	Grade Level	New Title VII Program Components	Number of Students	Number of Professional School Staff	Number of Non-Professional School Staff
1969-1970	Bruce-Guadalupe Community School	1-2	Bilingual curriculum with cultural emphasis	30	2.5	2
	Vieau	K-1	Bilingual curriculum with cultural emphasis	41	2	2
	South	10-12	Bilingual Reading, Semester 2 Bilingual Student Advisor Hispano-American Culture, Language, and History	47	0.5 (Sem 1) 1.5 (Sem 2)	1
	Lincoln	7-12	Bilingual Student Advisor Hispano-American Culture, Language, and History	46	0.5	1
				164	7	6
1970-1971	Bruce-Guadalupe Community School	1-3	Team teacher	59	4	3
	Vieau	K-2	Team teacher Spanish Curriculum Development Center field testing started Community liaison	107	4	3

(Continued on next page)

School Year	Title VII Schools	Grade Level	New Title VII Program Components	Number of Students	Number of Professional School Staff	Number of Non-Professional School Staff
1970-1971 Cont'd	South	10-12	Bilingual U.S. History	131	2	2
	Lincoln	7-12	Bilingual U.S. History and Bilingual Reading	62	2	1
				359	12	9
1971-1972	Vieau	K-3	Bilingual Resource Teacher Second team teacher Kindergarten extended to full day	125	7	4
	South	10-12	Personal Economics and Sociology Second student advisor	136	2.4	2
	Lincoln	7-12	Reading U.S. History and Hispano-American Culture, Language, and History dropped	21	1	1.5
				282	10.4	7.5
1972-1973	Vieau	K-4	Bilingual Reading Teacher	129	9	5
	South	10-12	Hispano-Urban Setting, Guidance, and Tutorial Program	155	2.2	3
	Lincoln	7-12	U.S. History and Hispano-American Culture, Language, and History reinstated Second student advisor	67	2	9
				351	13.2	10

(Continued on next page)

School Year	Title VII Schools	Grade Level	New Title VII Program Components	Number of Students	Number of Professional School Staff	Number of Non-Professional School Staff
1973-1974	Vieau	K-5	Fifth grade	145	10	10
	South	10-12	Second reading teacher and counselor	180	5	6
	Lincoln	7-12	Bilingual guidance counselor	38	3	3
				363	18	19
1974-1975	Vieau	5-6	Sixth grade	49	2	2
	South	10-12	Spanish for Spanish Speakers	112		
	Kosciuszko	7-9	Bilingual Reading	67	1	1
				228	3	3

(Continued on next page)

School Year	Title VII Schools	Title VII Grade Level	New Title VII Program Components	Number of Students	Number of Professional School Staff	Number of Non-Professional School Staff
1975-1976	Vieau	K-3 Gr. 7	Seventh grade One-half itinerant teacher	145	7.5	7
	Allen-Field	K-UP	Kindergarten-Upper Primary	128	4	4
	Holmes	LP-UP	Lower Primary-Upper Primary	48	2	2
	Kagel	K-UP	Kindergarten-Upper Primary	119	4	4
	Pierce	K-UP	Kindergarten-Upper Primary	108	4	4
	27th	LP-UP	Lower Primary-Upper Primary	65	2	2
	Bruce-Guadalupe Community School	1-2 5-6	One-half itinerant teacher	7	.5	0
	South	10-12	Bilingual Typing I and II Career Orientation Spanish for Spanish Speakers	27 17 84	4	4
	Lincoln	7-12	Bilingual Typing I Spanish for Spanish Speakers	9 18	1.5	1.5
	Kosciuszko	7-9	English for Latinos Spanish for Spanish Speakers	57 162	3	3
	Wells	7-9	English for Latinos Spanish for Spanish Speakers	20 41	2	2
	West	10-12	Bilingual Typing I and II English for Latinos Spanish for Spanish Speakers	12 37 8	1.5	1.5
			Total Title VII =	1,112	36.0	35.0

TABLE 2

MILWAUKEE BILINGUAL EDUCATION ANNUAL BUDGET AND FUNDING SOURCES

Year	Title VII	Title I	Milwaukee Public Schools	Total	Number of Pupils*	Cost Per Pupil
1969-1970	$ 45,258	$ 26,130	$ 53,000	$124,388	164	$ 758.46
1970-1971	130,118	85,546	63,000	278,664	359	776.22
1971-1972	173,534	97,208	70,000	340,742	282	1,208.30
1972-1973	140,517	105,812	79,300	325,629	351	927.72
1973-1974	154,250	166,211	100,000	420,471	363	1,158.32
1974-1975	99,169	117,029	512,445	728,643	1,212	601.19
1975-1976	279,902	107,675	1,308,854	1,696,431	1,436	1,181.36

* Fall Enrollments, Total Milwaukee Bilingual Program (Includes MPS, Title I, and Title VII)

Student Characteristics

With few exceptions, pupils came from Spanish-American homes where Spanish was spoken all or some of the time. Parents who enrolled their children in the program and secondary students who selected it wished to retain their cultural heritage. Several black parents on the north side enrolled their primary children in the Bilingual Program. Although Anglos were welcomed, very few opted for a bilingual education. At every grade level, students represented all stages of acculturation from newly-arrived to third and fourth generation in the U.S.A. and all degrees of language dominance from monolingual English or Spanish to bilingual. Those born in other countries had education backgrounds varying from excellent to non-existent, depending on socio-economic status.

Teaching Methods

All of the aforementioned student characteristics caused teaching methods and class procedures to differ from those used in a regular classroom in the following ways:

-- more individualized instruction work in small groups of similar language and achievement levels

-- team teaching of special language and ability groups across grade levels

-- an aide in each classroom to assist the teacher with record-keeping and the pupils with practice work

-- teacher responsibility for students doing practice teaching in bilingual education

-- classroom open to visitors as a demonstration project

-- use of Spanish and English as languages of instruction

-- pilot use of special curriculum materials and evaluation instruments

-- management of varying degrees of pupil language dominance and ability levels while teaching all subjects in both languages

Staff

The program was managed by a director, a coordinator, and one elementary and one secondary supervising teacher. In 1975-1976, a Latin was appointed to the Superintendent's administrative staff. A Parent Coordinator was appointed as liaison to community/school offices on the north and south sides, each staffed with a community worker and clerical help. The School Board employed a Hispanic social worker, psychologist, and learning disabilities teacher. Milwaukee Public Schools curriculum specialists assisted with program development. Program teachers were bilingual and bicultural. Teachers attended preservice workshops. They met with consultants during elementary and secondary inservice workshops on new materials, individualization of instruction, and revision of curricula. Payment of tuition and books encouraged teachers to take university courses related to bilingual education. Administrative/staff communication was maintained by a monthly meeting of school staff representatives and by school visits of supervising teachers. Twenty of 71 undergraduate student applicants were awarded traineeships to Alverno College or the University of Wisconsin-Milwaukee for preparation as Bilingual Program teachers.

Commitments

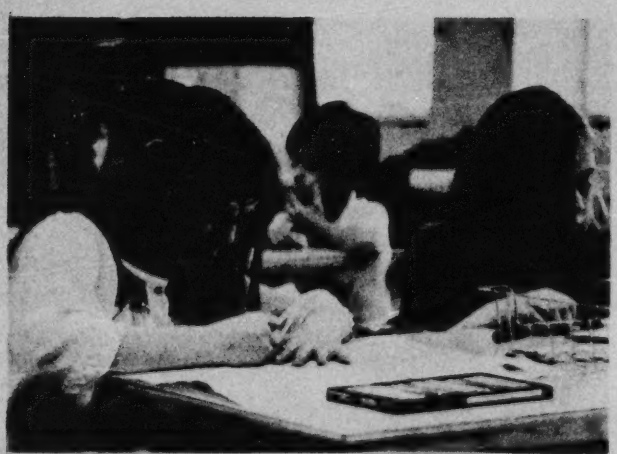
Title VII Bilingual Program classrooms participated as:

-- field test sites for new Grade 4 through 6 curricula in Spanish language, folklore, and social studies. These were developed by the Midwest Materials Development Center housed at Forest Home Avenue School, Milwaukee.

— field test sites for Spanish Curriculum Development Center, Miami, Florida

— model program demonstration sites for educators from around the world

Evaluation Procedures



EVALUATION PROCEDURES

Activities

Evaluation activities included:

- assessment of student achievement
- surveys of student, parent, and staff attitude
- development of systems to monitor student progress
- a system-wide survey to identify Spanish-dominant students
- a system-wide survey to identify non-English background students of all languages
- development of a test of Spanish reading comprehension
- development and publication of "Compendium of Measures for Bilingual Assessment" and a file of specimen sets
- presentation of a seminar on evaluation of bilingual education at the annual meeting of the Wisconsin Educational Research Association

The main focus of this report is the assessment activities.

Content

Each curriculum had as its core a series of objectives defining what should be learned by the end of the course. At primary/elementary levels, pupils were tested at the end of the year. In May 1976, English reading and arithmetic performance was compared with May 1975 for pupils tested at both times. On standardized tests, comparisons were made with other pupils in the same schools.

Attitudes were compared with pupils at similar schools. Secondary students took pretests and posttests at the beginning and end of their courses.

Sample Selection

Pre/post comparisons are limited to individuals who had both tests. Comparison samples similar to the Bilingual Program groups were difficult to obtain because of program expansion. Admission into the program was voluntary, rather than random.

Instrumentation

Locally-devised tests and monitoring instruments were related to specific course objectives and developed in cooperation with program staff. Standardized tests assessed general achievement goals for grade-level performance.

Data Analyses

The .01 level of confidence was used in tests of statistical significance, except where otherwise noted. At the .01 level of confidence, the same results probably would be obtained 99 times out of 100. In other words, there is a 99 percent probability that differences in outcome were real and not caused by chance.

Limitations of Data

Factors which may have introduced error or bias into the data were:

-- comparisons with regular classes which were taught in English only

-- some classrooms had to be omitted from some analyses because of lack of data

Primary Evaluation

PRIMARY EVALUATION

The seven schools serving Title VII primary pupils were:

Allen-Field	- Half-day Kindergarten through Upper Primary
Bruce-Guadalupe Community School	- Itinerant teacher for multi-levels
Holmes	- Lower and Middle Primary
Kagel	- Half-day Kindergarten through Upper Primary
Pierce	- All-day Kindergarten through Upper Primary
Twenty-seventh	- Lower and Middle Primary
Vieau	- All-day Kindergarten through Upper Primary and multi-level itinerant teacher for Grades 4-8

Children were enrolled in the program by their parents.

Table 3 describes total enrollment, attrition, and language dominance by school and grade level. Five hundred thirty-two enrolled in September and 88 entered during the year totaling 620 pupils who were served. One hundred six (17 percent) left the program during the year. Across the primary program, the majority (57 percent) were Spanish dominant. Almost half of all children were classified as bilingual, at home in either language.

Many Bilingual Program pupils were also enrolled in ESEA Title I programs for the educationally disadvantaged. Criteria for participation were scores falling in the lowest quartile of national norms for standardized tests, or a language handicap. Pupils in Title I academic programs could be referred for

Title I supportive services. At Vieau School, the Bilingual Reading Center staff and all bilingual classroom aides were funded by Title I. Table 4 reports the extensive involvement of Title VII pupils in Title I projects. For a breakdown by grade level and school, see Table I, Appendix.

TABLE 3

ATTRITION AND LANGUAGE DOMINANCE OF STUDENTS AT PRIMARY LEVEL
TITLE VII MILWAUKEE BILINGUAL EDUCATION PROGRAM 1975-1976

School	Grade Level	Starting Enrollment	Adds	Drops	Total Served	Language Dominance			
						NUMBER OF ENGLISH	NUMBER OF SPANISH	NUMBER OF THOSE WHO WERE BILINGUAL	NUMBER OF UNKNOWN
Allen-Field	Half-day K	36	8	3	44	17	27	26	0
	LP	21	7	5	28	13	9	11	6
	MP	24	5	3	29	15	14	15	0
	UP	23	2	2	25	9	14	20	0
	EP	1	0	0	1	0	1	1	0
	4	1	0	0	1	0	1	1	0
	Total	106	22	13	128	54	66	74	6
Bruce-Guadalupe Community School	LP	3	1	0	4	0	4	0	0
	MP	1	0	0	1	0	1	1	0
	5	1	0	0	1	0	1	1	0
	6	1	0	0	1	0	1	1	0
	Total	6	1	0	7	0	7	3	0
Holmes	LP	19	1	8	20	8	12	5	0
	MP	25	3	8	28	18	10	18	0
	Total	44	4	16	48	26	22	23	0
Kagel	Half-day K	21	8	7	29	8	21	13	0
	LP	26	9	12	35	17	17	19	1
	MP	25	3	2	28	15	12	9	1
	UP	24	3	4	27	15	12	17	0
	Total	96	23	25	119	55	62	58	2
Pierce	All-day K	22	1	1	23	1	22	6	0
	LP	23	6	4	29	14	15	16	0
	MP	21	7	4	28	12	16	16	0
	UP	25	3	5	28	18	7	12	3
	Total	91*	17	14	108	45	60	50	3

* Includes 16 blacks

(Continued on next page)

School	Grade Level	Starting Enrollment	Adds	Drops	Total Served	Language Dominance			
						NUMBER OF ENGLISH	NUMBER OF SPANISH	NUMBER OF THOSE WHO WERE BILINGUAL	NUMBER OF UNKNOWN
Twenty-seventh	LP	29	4	8	33	19	14	12	0
	MP	18	4	6	22	5	17	12	0
	UP	8	0	4	8	1	7	7	0
	EP	2	0	0	2	0	2	2	0
	Total	57*	8	18	65	25	40	33	0
Vieau	All-day K	22	2	5	24	6	18	7	0
	LP	30	3	4	33	15	15	13	3
	MP	33	6	4	39	8	29	21	2
	UP	30	0	3	30	12	18	19	0
	EP	5	2	2	7	0	7	4	0
	4	3	0	0	3	0	3	1	0
	5	2	0	0	2	0	2	0	0
	6	2	0	0	2	0	2	0	0
	7	3	0	2	3	1	2	1	0
	8	2	0	0	2	0	2	0	0
	Total	132	13	20	145	42	98	66	5
Total All Schools		532	88	106	620	249	355	307	16

* Includes 13 blacks

TABLE 4

TITLE VII PUPIL INVOLVEMENT
IN TITLE I PROGRAMS 1975-1976
DUPLICATED COUNT[1]

Title I Programs	Number of Title I Schools Serving Title VII Pupils	Number of Title VII Pupils Served				Total
		K	LP	MP	UP	
Math	5	22	16	24	10	72
Lower Primary Readiness	1	0	1	0	0	1
Reading Center	4	1	7	40	39	87
Reading Center HILL*	3	1	2	7	8	18
Coordinated Supportive Services Team	1	0	3	0	0	3
Bilingual Reading Center	1	1	1	18	26	46
Guidance	3	10	5	8	8	31
Psychologist	3	12	4	6	3	25
Social Worker	5	2	4	7	11	24
Clothing	6	1	4	8	8	21
Bilingual Aides	1	14	3	26	33	76
		64	50	144	146	404

* HILL = High Intensity Learning Laboratories

[1] Duplicated count results from the fact that some children are in more than one program.

Kindergarten

Vieau and Pierce Schools each had one all-day bilingual kindergarten.

Kagel had one half-day kindergarten with a bilingual and a monolingual English teacher team. The bilingual teacher served half time as bilingual resource teacher for the school.

Allen-Field had two half-day bilingual kindergartens with a bilingual teacher and a monolingual English teacher who taught music and readiness skills for one hour during each session. The classroom was a practice teaching site.

The Holmes and Twenty-seventh Street Schools did not operate bilingual kindergartens.

All kindergarten pupils in Bilingual Program schools took the Tests of Basic Experiences, General Concepts (TOBE), in English or Spanish during the first week of school. In October, they were given the James Language Dominance Test in English and Spanish for placement in one of five language categories (Table 5) based on the child's comprehension and production. Results of these two tests provided baseline data and assisted teachers in grouping pupils for reading readiness activities. During the school year, pupils were monitored in social studies, readiness skills, second language arts, and science. In May, children were tested city-wide with the Metropolitan Readiness Tests. With the permission of the publisher, a Spanish version of Level 1, Form P, was developed for all tests except Rhyming.

Findings

Tests of Basic Experiences, General Concepts

The 80 Bilingual Program pupils tested on the TOBE had an average score of 12.35. This score was near the upper limit (13.00) of the lowest quartile on national norms, which was the criterion for Title I eligibility. A comparison group of 32 Spanish-surnamed pupils was drawn from four Title I all-day kindergartens in Bilingual Program schools. Of these schools, only Vieau had a bilingual kindergarten. Entering comparison children averaged 8.38 on the TOBE, significantly lower than entering bilingual kindergarten children (Table 5).

TABLE 5

PERFORMANCE OF BILINGUAL AND SPANISH-SURNAMED COMPARISON KINDERGARTEN PUPILS ON THE TESTS OF BASIC EXPERIENCES, GENERAL CONCEPTS, SEPTEMBER 1975

Kindergarten Group	N	$\bar{x}$	SD	t
Bilingual	80	12.35	4.81	
Comparison	32	8.38	2.77	5.47*

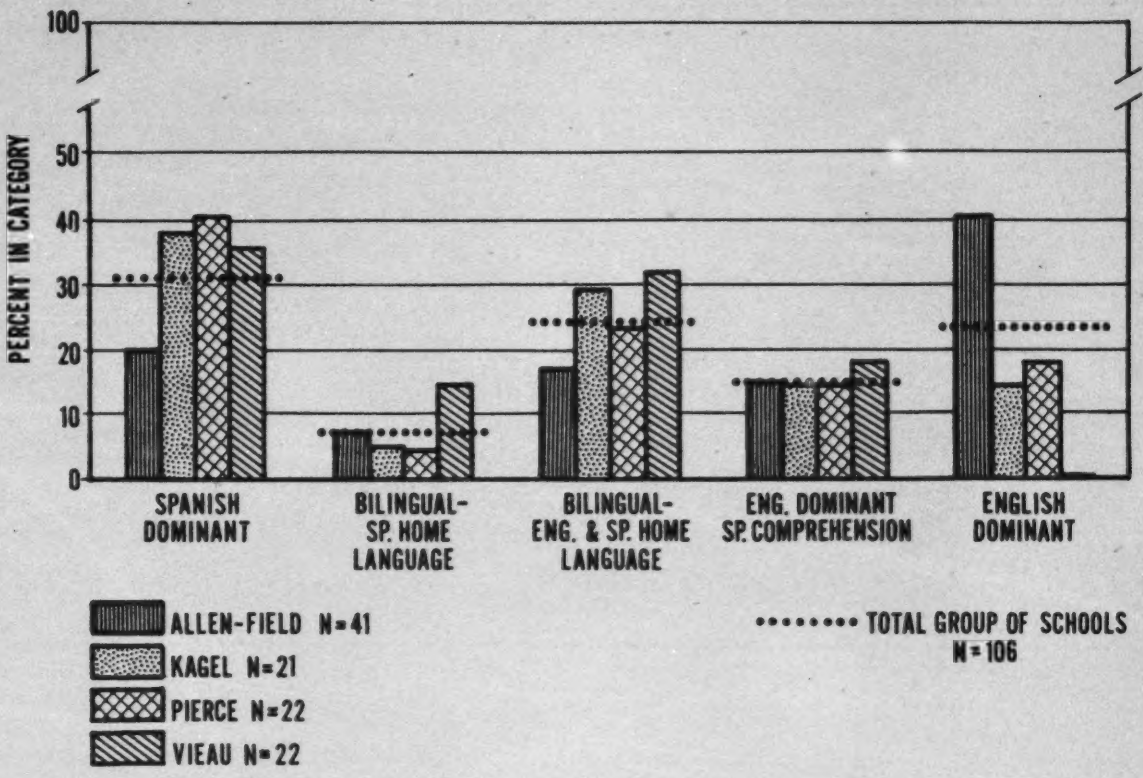
* Difference is significant at or beyond the .01 level of confidence

James Language Dominance Test

Of the 106 kindergarten pupils, 23 percent were monolingual English, 31 percent Spanish, 31 percent were bilingual, and 15 percent were English-dominant but bilingual in comprehension. As shown in Figure 2 and Table II, Appendix, 62 percent were in the Spanish-dominant categories and 38 percent in English-dominant. Allen-Field School had over twice as large an English-dominant population as any other school.

figure 2.

KINDERGARTEN CATEGORIES,
JAMES LANGUAGE DOMINANCE TEST, FALL, 1975



Note that each of the five categories represents a different linguistic challenge for the goal of complete bilingual education in terms of ability to manipulate the second language and to relate to the second culture.

Monitor Tests

1. Reading Readiness Skills Inventory

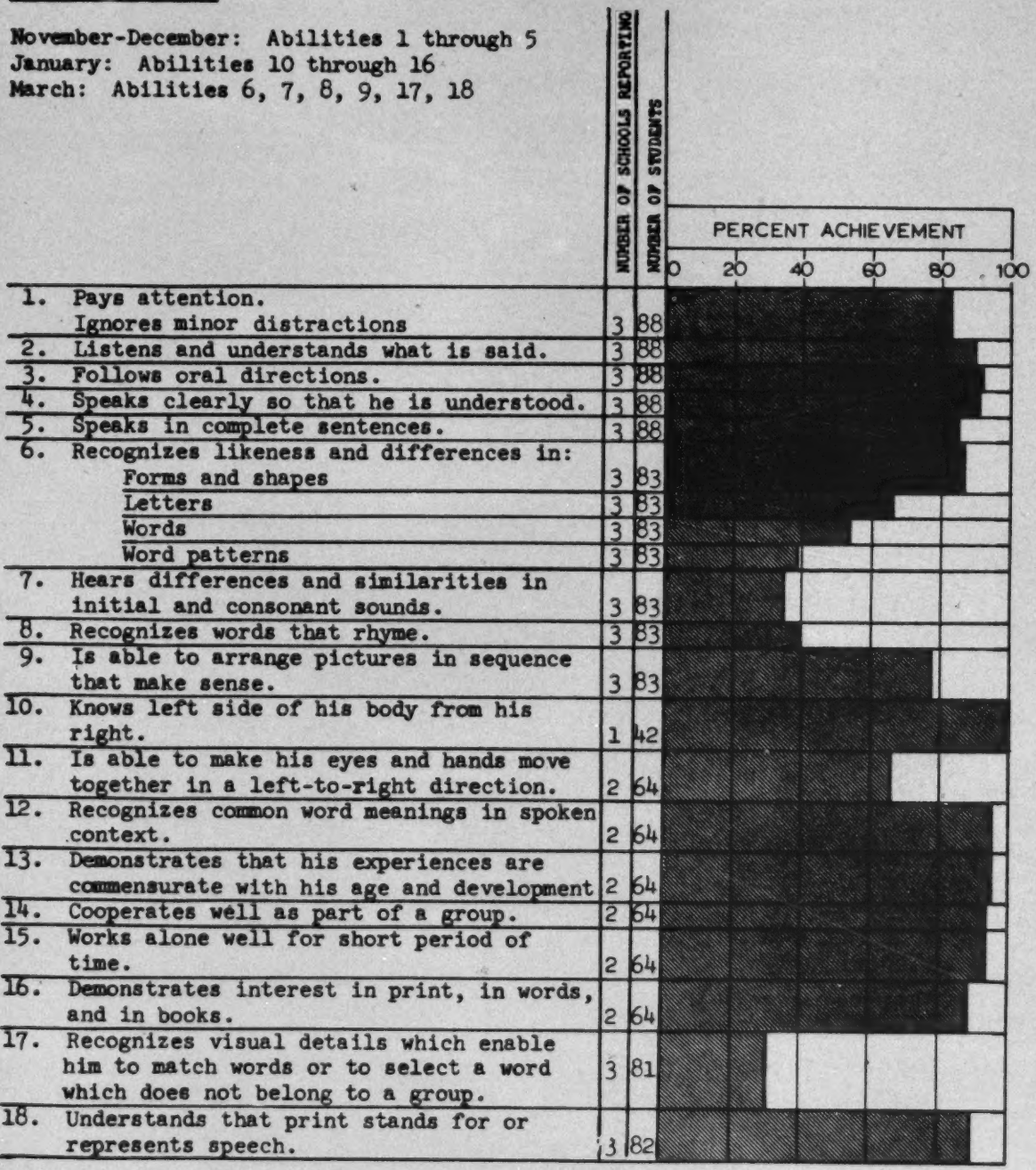
Allen-Field, Kagel, and Pierce Schools participated. By the end of March, over 80 percent of the pupils had achieved 13 of the 18

skills. Visual and oral discrimination tasks and eye/hand coordination were the weak spots, as shown in Figure 3 and Table III, Appendix.

FIGURE 3. KINDERGARTEN READING READINESS SKILLS MONITOR 1975-1976

Monitor Schedule

November-December: Abilities 1 through 5
January: Abilities 10 through 16
March: Abilities 6, 7, 8, 9, 17, 18


NUMBER OF SCHOOLS REPORTING
NUMBER OF STUDENTS
PERCENT ACHIEVEMENT
0
20
40
60
80
100
1. Pays attention. Ignores minor distractions 3 88
2. Listens and understands what is said. 3 88
3. Follows oral directions. 3 88
4. Speaks clearly so that he is understood. 3 88
5. Speaks in complete sentences. 3 88
6. Recognizes likeness and differences in:
Forms and shapes 3 83
Letters 3 83
Words 3 83
Word patterns 3 83
7. Hears differences and similarities in initial and consonant sounds. 3 83
8. Recognizes words that rhyme. 3 83
9. Is able to arrange pictures in sequence that make sense. 3 83
10. Knows left side of his body from his right. 1 42
11. Is able to make his eyes and hands move together in a left-to-right direction. 2 64
12. Recognizes common word meanings in spoken context. 2 64
13. Demonstrates that his experiences are commensurate with his age and development 2 64
14. Cooperates well as part of a group. 2 64
15. Works alone well for short period of time. 2 64
16. Demonstrates interest in print, in words, and in books. 2 64
17. Recognizes visual details which enable him to match words or to select a word which does not belong to a group. 3 81
18. Understands that print stands for or represents speech. 3 82

2. Mathematics

Manipulative materials were used on two occasions for small-group monitoring of mathematics in kindergarten. November tasks included 13 items on recognition of sets and shapes, serial order, and similarities and differences. The three participating schools averaged 9 to 12 correct. Most errors involved shape recognition and similarities and differences. In March, 13 tasks tested visual memory, positional relationships, and classification. The group had over 50 percent success on all but two concepts, "over" and "behind".

3. Social Studies

Pupils in three schools were checked on three tasks in December 1975. Half or more were able to put on their coats without help, hang up wraps, and take out and put away play equipment independently.

4. Science

All four schools participated in a four-item science monitoring exercise using manipulative materials. Performance was highest in recognition of color, tactile, and seasonal differences, and lowest in specific identification of the differences.

5. Second Language

Reliable monitoring of understanding and speaking the second language was not feasible at the kindergarten level.

Metropolitan Readiness Tests

As part of the City-Wide Testing Program, all kindergarten children were tested in May with the Metropolitan Readiness Tests (MRT). Level 1, Form P, was used in the Bilingual Program in English or with the locally-developed Spanish version. All pupils in comparison groups were tested with Level 1, English. Analyses were made of two skill areas designated by the test publisher: VISUAL (Letter Recognition and Visual Matching tests) and LANGUAGE (School Language and Listening and Quantitative Language tests). The Pre-Reading Skills Composite is a total score including Auditory Memory and Rhyming tests in addition to the above-named skill area tests. There is no Reading Skills Composite for the Spanish version as the Rhyming test was not amenable to translation. Comparisons were made of:

1. Bilingual Program pupils tested in English and those tested in Spanish.

2. Bilingual Program pupils tested in English and a comparison group of Spanish-surnamed regular kindergarten pupils, including the TOBE comparison group.

3. Bilingual Program pupils and Spanish-surnamed All-Day Kindergarten Program pupils at Vieau School.

The outcomes are presented graphically in Figure 4. Statistics are in Table IV, Appendix. Findings revealed that:

-- performance of those tested with the English and Spanish versions did not differ for the total program or within schools in Visual Skills, Language Skills, or Pre-Reading Skills Composite.

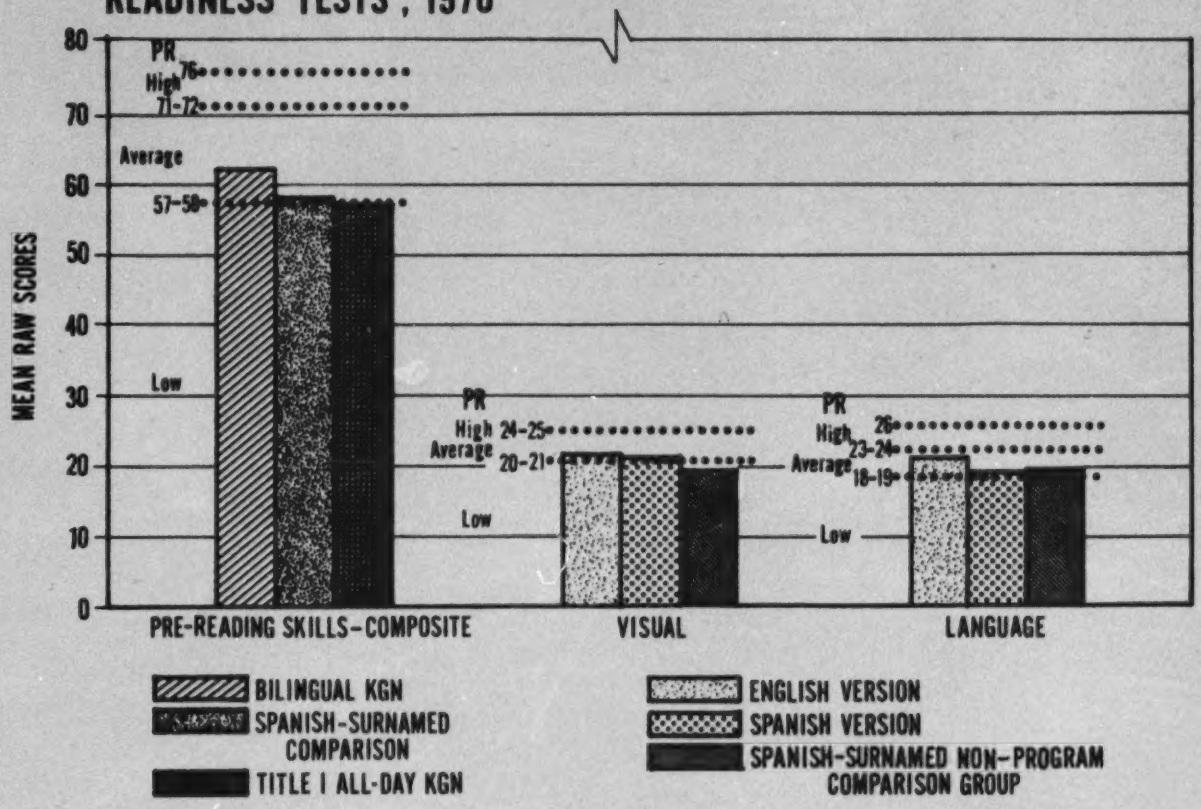
-- performance of bilingual pupils and Spanish-surnamed comparison pupils at Vieau School did not differ. The Vieau Spanish-surnamed comparison group did not differ from the combined Bilingual Program kindergartens.

-- the total Bilingual Program rating was "average" in all skills on the Performance Rating based on national norms

for the end of kindergarten, largely because of high scores at Vieau and Allen-Field.

-- Bilingual Program total mean score (62.37) on the Pre-Reading Skills Composite was significantly higher than that of 779 pupils in the Title I All-Day Kindergarten Program (57.07).

fig. 4 KINDERGARTEN PERFORMANCE ON THE METROPOLITAN READINESS TESTS, 1976



PR = PERFORMANCE RATING BASED ON NATIONAL NORMS FOR END-OF-KINDERGARTEN

-- confirming past findings, length of kindergarten day (half day or all day) was not a factor in Bilingual Program performance on the Metropolitan Readiness Tests. Both half-day and all-day programs were represented in high scoring and low scoring schools.

-- compared with Bilingual Program pupils, regular kindergarten Spanish-surnamed scored lower on the TOBE pretest and at the same level on the MRT posttest. However, pretest performance on the TOBE, General Concepts, was not a reliable pre-

dictor of end-of-kindergarten performance on the MRT. The correlation was 0.32. R^2 was 10.1, indicating that performance on the TOBE accounted for only ten percent of the variance in the two sets of test scores.

-- on the English Pre-Reading Skills Composite, Allen-Field half-day kindergarten pupils scored significantly higher than Kagel or Pierce pupils. Vieau scored the same as Allen-Field but not significantly higher than the others because of the small number tested at Vieau (Table V, Appendix).

Summary

There were three half-day and two full-day Bilingual Program kindergartens at four schools. The majority of the 106 pupils (62 percent) were Spanish-dominant. As a group, they tested just inside the lowest quarter of the national population on a pretest of general concepts and in the average range of the national population on an end-of-year test of school readiness skills. All tests were administered in the child's dominant language, Spanish or English, and the two language groups did not differ in performance. Year-end results compared favorably with those of Title I All-Day Kindergarten pupils. Allen-Field scored highest on the Pre-Reading Skills Composite. This difference was not related to time spent at school (half day or full day) nor to the years of program operation. The Allen-Field and other bilingual kindergarten teachers and supervisors emphasized that the superior test performance of Allen-Field pupils was a demonstration of optimal classroom support. The Allen-Field kindergarten had these advantages over the others: more adults in the classroom (full time = one bilingual aide; part-time daily = one Learning Center aide, one reading readiness teacher, one student teacher, and one Neighborhood Youth Corps student), an experienced teacher, new facilities, ample materials,

more pupils who had preschool or Head Start experience, and more pupils whose brothers or sisters had been in the program. The crucial factor was believed to be the number of trained adults available to cover the curriculum in two languages.

Lower Primary

The six project schools each had one bilingual lower primary classroom. Vieau had two teachers and an aide. Other classes had one teacher and aide.

Lower primary pupils were tested individually with the James Language Dominance Test, which classified them into one of five linguistic groups from monolingual Spanish to monolingual English. Results enabled teachers to group pupils for beginning reading instruction in their first language. In previous years, determination of the dominant language had been a problem in many cases.

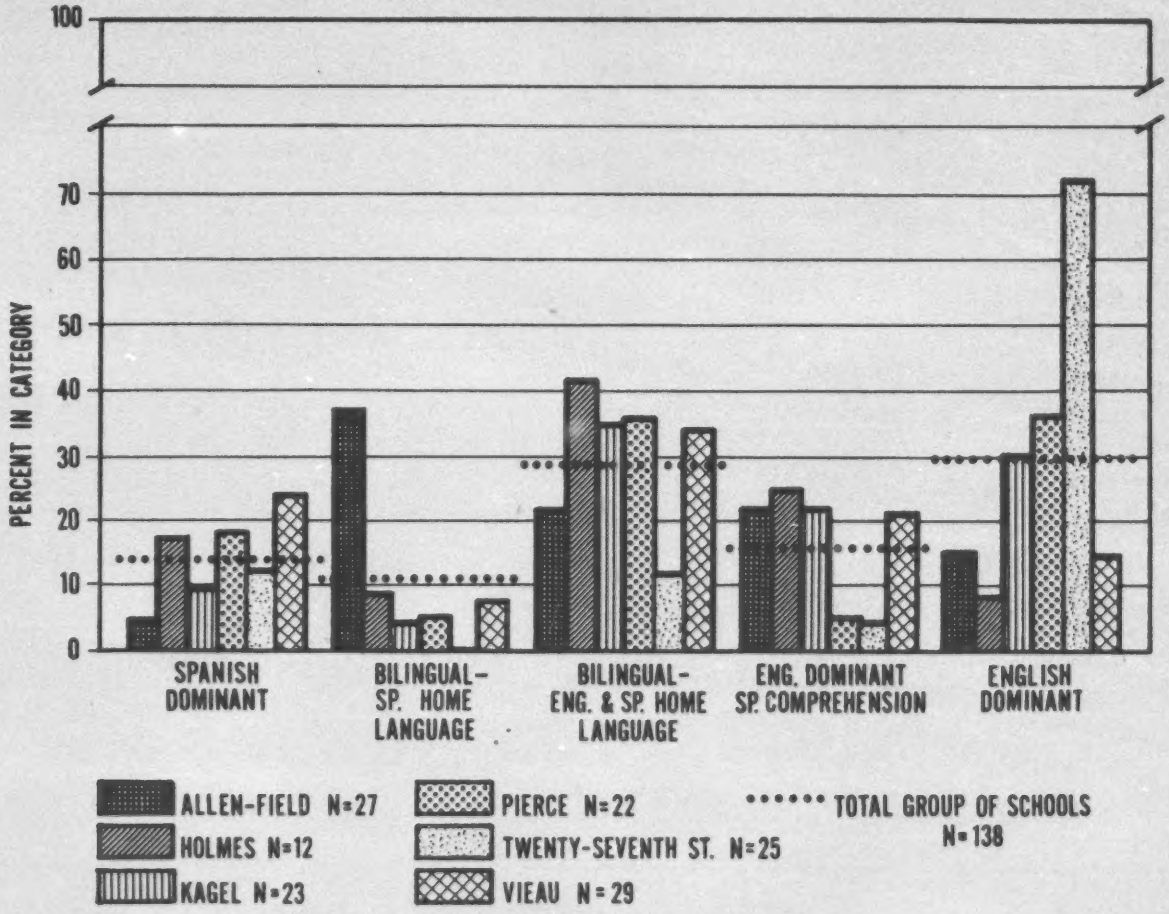
Monitoring tests were developed from program objectives for English Language Arts, Spanish Language Arts, Mathematics, Social Studies, Science, and Writing. Pupil reading levels were collected on four occasions. At the end of the year, English-speaking pupils were tested with the Metropolitan Achievement Tests, Primer. With the permission of the publisher, a Spanish translation was made of instructions for the Numbers Subtest for which no reading was required. Performance of Bilingual Program pupils was compared with Spanish-surnamed pupils in the regular lower primary in two schools and with Title I achievement. Within the Bilingual Program, performance was studied in terms of length of time in the program and Title I involvement.

Findings

James Language Dominance Test

of the 138 pupils tested, the 25 percent who were Spanish-dominant or bilingual with Spanish as a home language were taught to read first in Spanish. The remaining 75 percent learned to read initially in English. While developing reading skills in their first language, all children were acquiring comprehension and speaking skills in their second language. Figure 5 and Table VI, Appendix, show the language category distributions by school.

fig.5 LOWER PRIMARY CATEGORIES
JAMES LANGUAGE DOMINANCE TEST, FALL, 1975



Monitor Tests

1. Reading

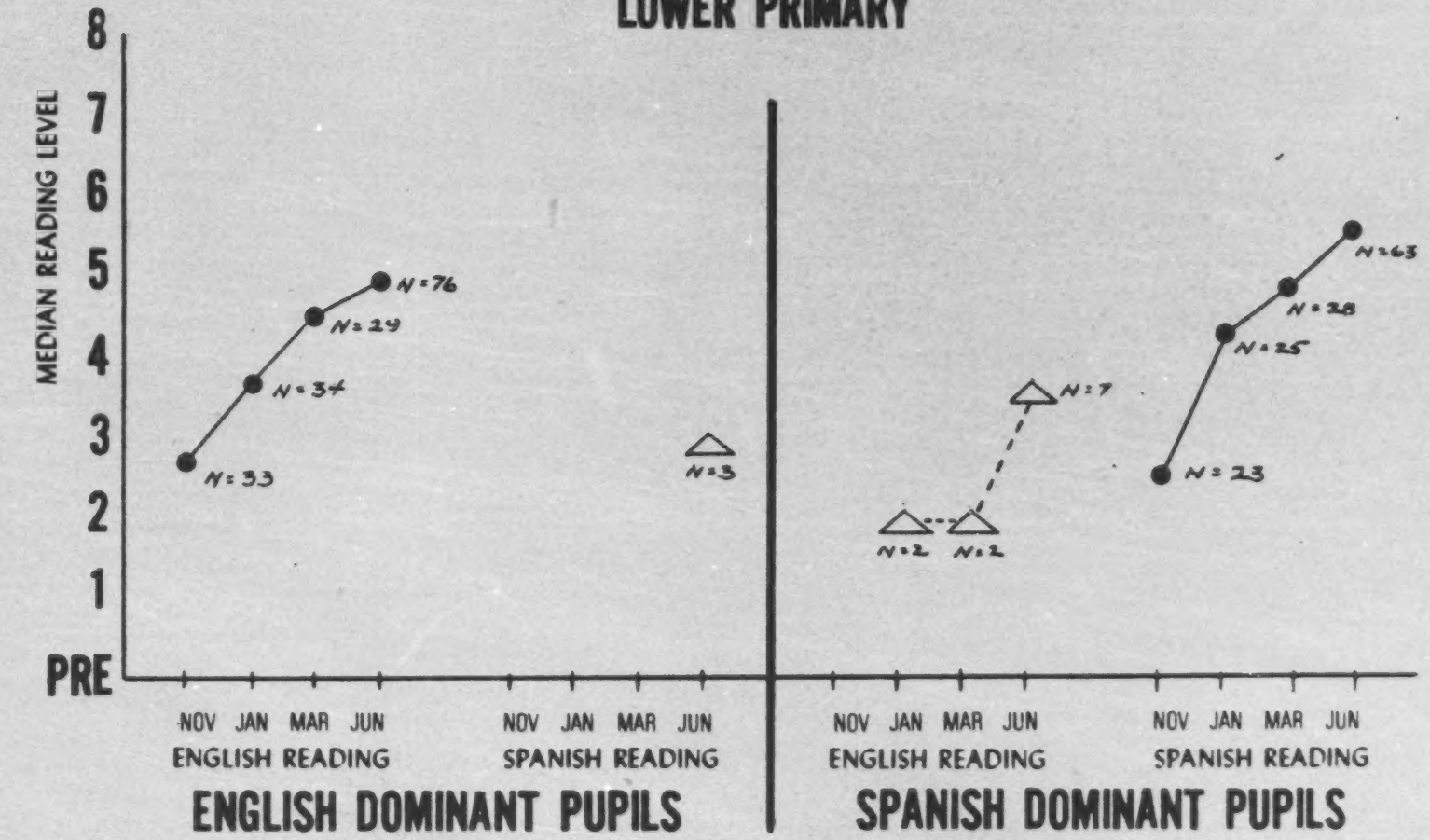
Teachers were asked to report the reading levels of lower primary pupils in November, January, March, and June. Table VII, Appendix, shows the percent of English-dominant and Spanish-dominant pupils reported at each reading level in both English and Spanish. Lower primary pupils generally spent all year acquiring reading skills in their dominant language. Seven of the 63 Spanish-dominant and three of the 76 English-dominant lower primary pupils reached Level 8, the criterion for switching, and were reading in both languages at the end of the year.

In June, median reading levels, based on book level, were 5.0 for English-dominant and 5.5 for Spanish-dominant pupils. Half of a group lie above and half below the median which is the middle rank. Figure 6 illustrates the median reading levels of Spanish-dominant and English-dominant pupils in their dominant and second languages at the four monitoring periods. It is a picture of steady progress.

FIG. 6

FIRST AND SECOND LANGUAGE MEDIAN READING LEVELS

LOWER PRIMARY



2. Mathematics

Items for the November math monitor were selected from program objectives by a teacher committee. One hundred and forty-three pupils in six schools took the 16-item test. School mean scores ranged from 9.5 to 14.7 items correct. In spring, 108 pupils (all except Pierce School) took the ESEA Title I monitor test for the lower primary math project with two items for each of nine objectives. Sixteen Title VII lower primary pupils were enrolled in the Title I math project. Bilingual Program performance is compared with Title I performance in Table 6.

TABLE 6

COMPARISON OF BILINGUAL PROGRAM AND TITLE I MATH PROJECT LOWER PRIMARY PUPILS ON SPRING 1976 MONITOR TEST

	N	Percent Achievement								
		Objectives								
		1	2	3	4	5	6	7	8	9
Bilingual Pupils	108	78	78	82	89	91	47	81	71	89
Title I Math Pupils	506	71	74	63	75	64	52	72	63	69

Bilingual Program achievement was greater on all objectives except the concept of proportion, Objective 6, which had not been covered in one of the two Title VII math textbooks.

3. Social Studies

Social studies was monitored in December with eight in-class test items selected by a teacher committee. The monitor was designed as a group activity. Over 50 percent of the pupils in each school responded

correctly to half or more of the questions. Pupils had the most trouble answering, "Where do you live?".

4. Science

The science monitor was a group activity covering three items selected from objectives by a teacher committee. Four of six schools participated. Fifty percent or more of pupils responded correctly to all items. Grouping by property was the most difficult task.

5. Second Language

Three schools recorded the second language achievement of 60 pupils in November. Comprehension and speaking skills were monitored. The 22 for whom English was a second language were ahead of the 38 Spanish as a Second Language pupils in almost all skills, Tables VIII and IX, Appendix. This outcome would be expected as a result of their daily immersion in English speech and culture. Teachers at all grade levels found the checklist time consuming and difficult because of a lack of specific directions for assessing the various items.

6. Writing

Near the end of the year, lower primary pupils were asked to print their own first and last name. Five bilingual schools participated. School averages ranged from 1.65 to 1.85 on a two-point scale (one point for each name printed correctly).

Metropolitan Achievement Tests

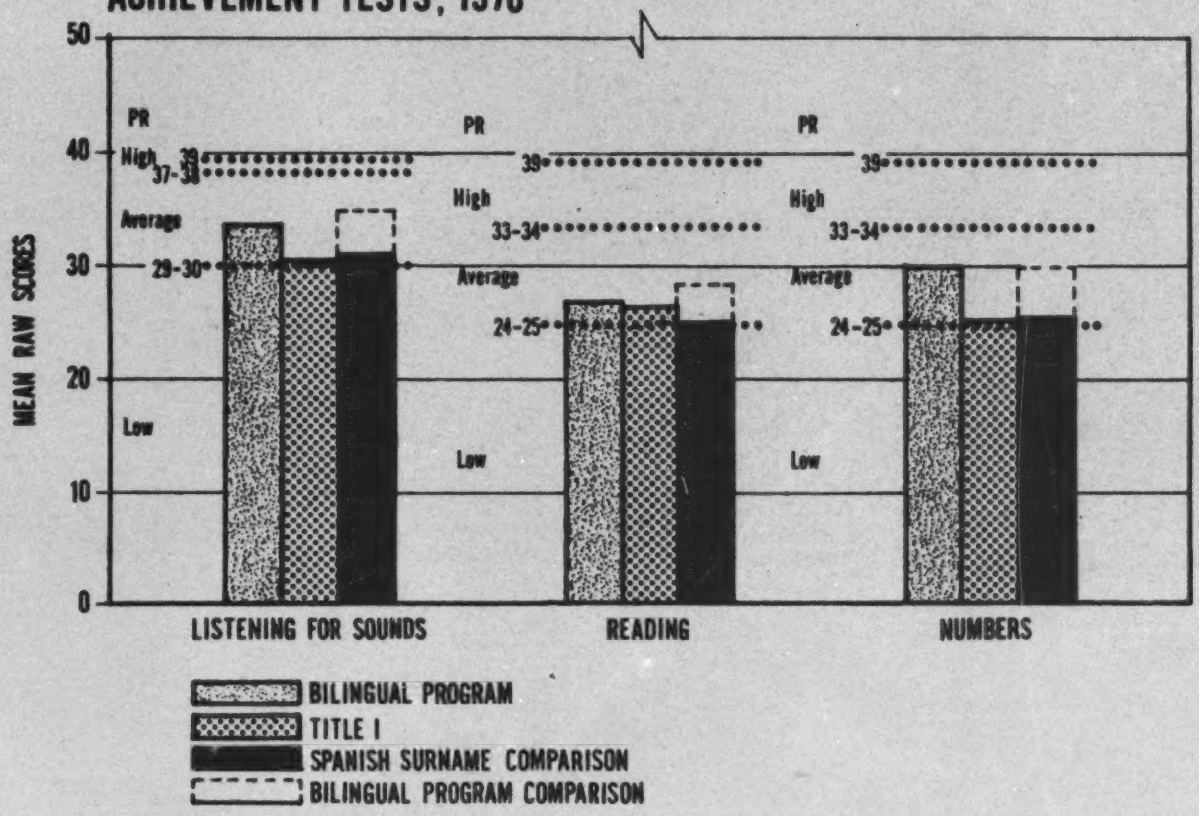
In May, teachers administered the Metropolitan Achievement Tests, Primer, to English-speaking pupils. Monolingual Spanish pupils took only the Numbers

Subtest, which did not require reading and which had been translated with the publisher's permission. Comparisons were made of:

1. Bilingual Program pupils tested in mathematics with English or Spanish instructions
2. Bilingual Program pupils tested in English and a comparison group of Spanish-surnamed pupils in regular lower primary classes at Kagel and Vieau Schools
3. Bilingual Program pupils enrolled and not enrolled in the Title I Math Program
4. length of time in the Bilingual Program, one year or two years
5. Bilingual Program and Title I Elementary Mathematics Program
6. Bilingual Program and Title I Reading Center Program

The outcomes are presented graphically in Figure 7. Statistics are in Tables X, XI, XII, and XIII, Appendix.

fig. 7 LOWER PRIMARY PERFORMANCE ON THE METROPOLITAN ACHIEVEMENT TESTS, 1976



PR=PERFORMANCE RATING OF SPECIAL END-OF-YEAR NORMS BASED ON NATIONAL NORMS

Findings revealed that:

— the 82 Bilingual Program pupils scored in the national fourth stanine (average range) on Listening for Sounds, which measures "pupils' knowledge of beginning and ending sounds and sound/letter relationships". Their performance was significantly higher than 98 Title I Reading Program pupils who scored in the third stanine (low range).

-- both Bilingual Program pupils and Title I Reading and Math Program pupils scored in the national average range in Reading and Numbers. Bilingual pupils who took the Spanish version of the Numbers Test also scored within the national average.

— these outcomes demonstrate the attainment of the goal of grade-level achievement.

-- compared with Spanish-surnamed non-program pupils at Kagel and Vieau Schools, Bilingual Program pupils:

1) in kindergarten, 1975, scored the same in MRT Language and Numbers and higher in Word Meaning.

2) in lower primary, 1976, scored significantly higher on all MAT Tests, Listening for Sounds, Reading, and Numbers.

This outcome suggests that the initial two years of bilingual instruction may have a positive cumulative effect on the acquisition of English reading skills and math concepts.

-- pupils who had spent two years (kindergarten and lower primary) in the Bilingual Program were compared with those who were in one year (lower primary only). Those in for two years scored significantly higher in Reading. There was no difference between these groups in Listening for Sounds and Numbers. It could indicate that one year in the program had a positive effect in these areas. However, statistical studies indicated that the MRT Numbers Test was not a reliable predictor for the MAT Primer (R^2=3.5 percent).

-- there was no difference on the Numbers Test between Bilingual Program pupils enrolled and not enrolled in the Title I Math Program.

Summary

Pupils made good progress in learning to read in their dominant language and in acquiring speaking and comprehension skills in their second language. They performed within the national average range on standardized tests of reading and mathematics and scored higher than a Spanish-surnamed non-program group. By these criteria, the goal of grade-level achievement was attained in the overall lower primary program.

Middle Primary

Vieau had two middle primary classrooms. The remaining five schools had one each. At Holmes School, middle and upper primary pupils were combined in a single classroom. Each classroom had a bilingual teacher and bilingual aide.

Pupil achievement was monitored using locally-developed tests on project objectives selected by teacher committees. Subjects covered were Reading, Second Language Arts, Mathematics, Social Studies, Science, and Writing. In spring, English-speaking Title VII pupils and Title I pupils were given the Metropolitan Achievement Tests, Primary I. Spanish-speaking Bilingual Program pupils had the Mathematics Subtest only. This test did not require reading and the instructions were translated with the publisher's permission.

Findings

Monitor Tests

1. Reading

   Pupils learned to read in their dominant language, English or Spanish. During middle primary, many pupils were ready to begin reading in the second language. Teachers were asked to report the reading levels of middle primary pupils in November, January, March, and June. Table XIV, Appendix, shows the percent of English-dominant and Spanish-dominant pupils reported at each reading level in both English and

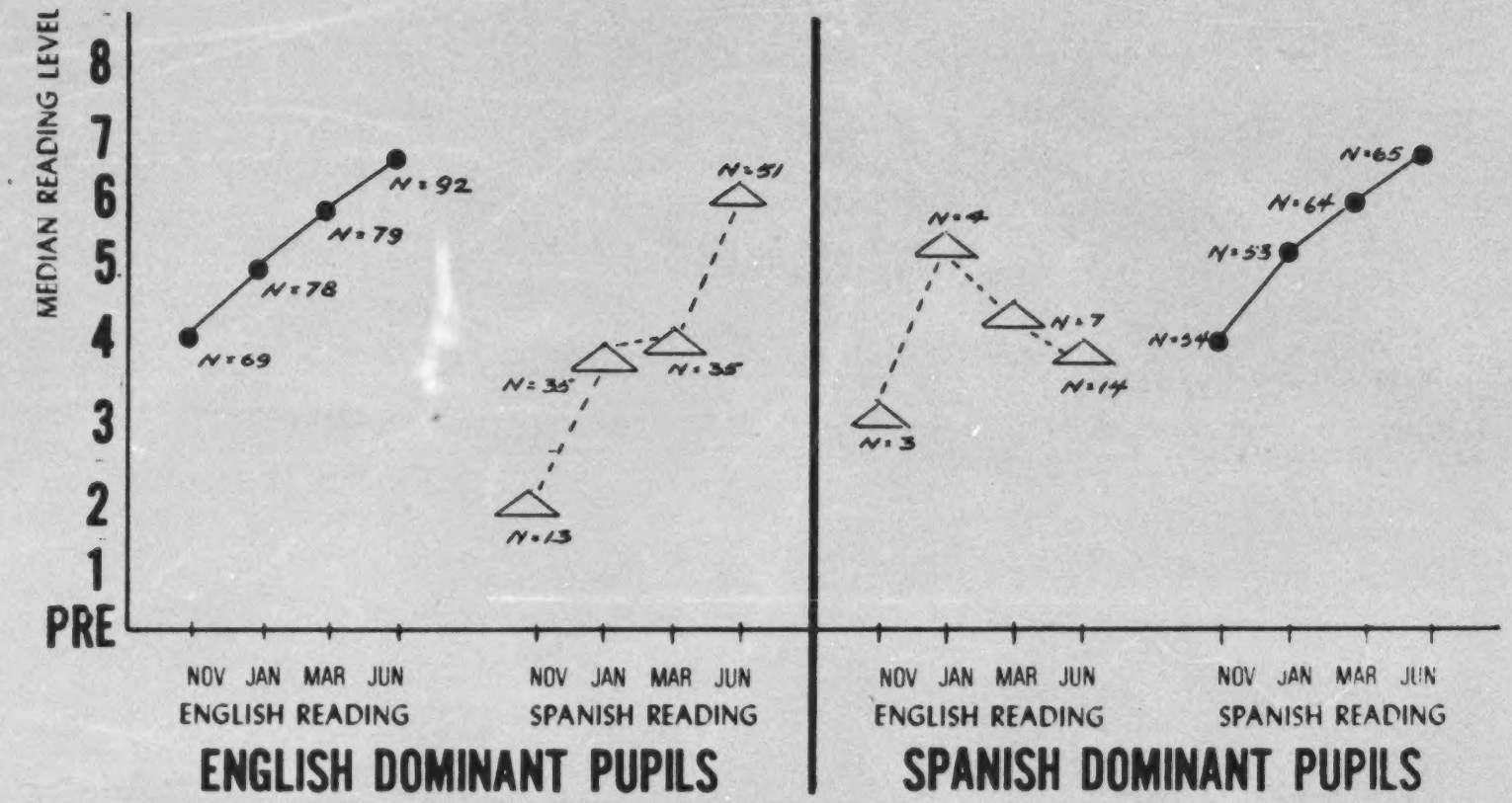
Spanish. The two groups made almost parallel progress in their first language. By the end of the year, Level 8 or higher had been attained by 39 percent of English-dominant pupils and 44 percent of Spanish-dominant. Level 8 is the level recommended for the switch to second language reading. However, 55 percent of English-dominant were reading Spanish, indicating some switching below Level 8. Only 23 percent Spanish-dominant pupils were reading English, indicating a delay of switching in some cases. Such a delay is indicated for instance when second language comprehension skills and oral fluency need further development.

In June, median reading levels were 6.9 for English-dominant and 7.1 for Spanish-dominant pupils. The median is the middle rank. Half of the pupils were in higher levels and half in lower levels. Figure 8 illustrates the median reading levels of English-dominant and Spanish-dominant pupils in their dominant and second languages. At the end of the year, English-dominant reading levels were close in both languages. Spanish-dominant pupils were almost three levels lower in English than in Spanish.

FIG. 8

FIRST AND SECOND LANGUAGE MEDIAN READING LEVELS

MIDDLE PRIMARY



2. Mathematics

In November, middle primary pupils were tested on nine objectives selected by a teacher committee. School mean scores ranged from 5.5 to 14.9 items correct on the 17-item test. In spring, 116 pupils took the monitor test for the ESEA Title I middle primary math project. Twenty-four Bilingual Program middle primary pupils were served by the Title I Math Project. The test had two items for each of nine objectives. Bilingual Program performance is compared with Title I performance in Table 7.

TABLE 7

COMPARISON OF BILINGUAL PROGRAM AND TITLE I MATH PROJECT MIDDLE PRIMARY PUPILS ON SPRING 1976 MONITOR TEST

	N	Percent Achievement								
		Objectives								
		1	2	3	4	5	6	7	8	9
Bilingual Pupils	116	72	84	34	65	79	74	80	48	83
Title I Math Pupils	798	81	89	61	66	83	81	82	80	79

Bilingual Program pupils appeared to have trouble with Question 3, place value, which was related to reading comprehension; and Question 8, the concept of proportion, covered in only one of the two texts in use. Otherwise, Bilingual Program pupils were close to Title I achievement and excelled on Item 9, recognition of the value of coins.

3. Social Studies

Social studies was monitored as a group activity in December. Seven in-class test items were based on objectives selected by a

teacher committee. Four of the six schools participated. About half the pupils knew 50 percent or more of the items. They had the greatest difficulty with "Describe weather conditions in different parts of the world".

4. Science

The science monitor was a group activity covering six objectives selected by a teacher committee. All schools participated. Over half the groups were correct on an average 4.5 of the six items. Most errors were made in grouping in serial order according to property.

5. Second Language

Five schools monitored the second language achievement of 105 pupils in November. English was the second language of 44 pupils and Spanish of 61. As shown in Tables VIII, IX, and XV, Appendix, English as a second language was developed more rapidly than Spanish. Reading and writing in the second language had been started by 13 in English and 27 in Spanish.

6. Writing

In a fall monitor, pupils were asked to write a sentence about Thanksgiving in their dominant language. The sentences were rated on letter formation, spelling, punctuation, capitalization, and content for a possible maximum score of five. Six of seven classes participated. Mean class scores ranged from 2.3 to 4.96.

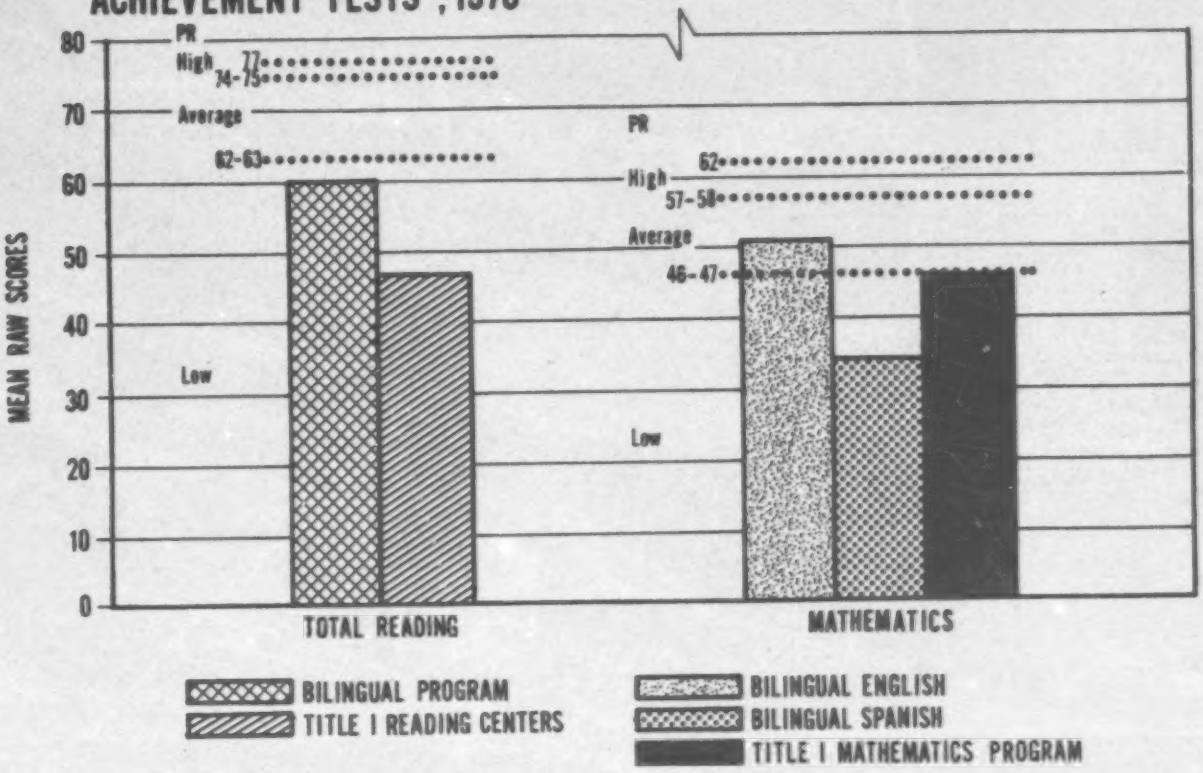
Metropolitan Achievement Tests, Primary 1

In May, teachers administered the Metropolitan Achievement Tests, Primary 1, to all English-speaking pupils. The tests were included in the ESEA Title I testing program. Monolingual Spanish pupils took only the Mathematics Subtest, which did not require reading and for which instructions had been translated with the publisher's permission. Comparisons were made of:

1. Bilingual Program and Title I Reading Center Program pupils.
2. Bilingual Program and Title I Elementary Mathematics Program pupils.
3. Bilingual Program pupils tested in math with English or Spanish instructions.
4. length of time in the Bilingual Program, one, two, or three years.

The outcomes are presented graphically in Figure 9. Statistics are in Tables XVI and XVII, Appendix.

fig. 9 MIDDLE PRIMARY PERFORMANCE ON THE METROPOLITAN ACHIEVEMENT TESTS, 1976



PR = PERFORMANCE RATING BASED ON SPECIAL END-OF-YEAR MIDDLE PRIMARY NORMS

According to special end-of-year middle primary norms based on national norms:

-- on total reading, Bilingual Program pupils scored higher (Stanine 3) than Title I Reading Center pupils (Stanine 2). Both were below average on national norms (Table XVI).

-- on total mathematics, English-dominant Bilingual Program pupils scored higher (Stanine 5, average) than Title I Elementary Mathematics pupils (Stanine 3, below average) but Spanish-dominant Bilingual Program pupils scored lower (Stanine 2).

According to length of time in the Bilingual Program (Table XVII):

-- there was no significant difference in reading scores of pupils who were in their first, second, third, or fourth year in the program.

— there was no significant difference in mathematics scores of English-dominant pupils in their first, second, third, or fourth year in the program.

— there was a significant difference in mathematics scores of Spanish-speaking pupils. Those in their second year in the program scored lower than those in their first year or third year.

Summary

Most middle primary pupils were only one or two levels ahead of lower primary pupils in first language reading by the end of the year. About 40 percent had also begun reading in their second language. On a standardized test of English reading, they scored in the low range on national norms but higher than Title I Reading Center pupils.

In mathematics, English-dominant pupils scored in the average range on national norms and higher than Title I Mathematics Program pupils.

Spanish-dominant pupils, particularly those in their second year in the program, scored low in mathematics. The lack of a Spanish textbook corresponding to the English Addison-Wesley mathematics series was at least partially responsible for the difficulties encountered by Spanish-dominant pupils, according to the elementary supervising teacher. The project director suggested that perhaps mathematics should be taught according to the recommendations based on research by Muriel Saville-Troike(1).

> "Whatever the dominant language of the child, mathematical computational skills should be first developed in English since advanced work in mathematics will probably be done in this language and later switching of these skills is difficult. The other language can and should be used for non-computational purposes (recognition of number words, simple counting, giving addresses, etc.) . . .

Computational skills should be developed in English, as explained in the design section above. Students continue to perform basic mathematical processes in the language in which they first learned them, and more advanced courses in mathematics will probably require the use of English."

Upper Primary

There were upper primary pupils at six schools. Allen-Field, Kagel, and Pierce had one classroom. Vieau had one upper primary and one middle/upper primary class. Holmes and Twenty-seventh Street each had one mixed middle/upper primary classroom. Pupil achievement was monitored on project objectives selected by teacher committees. Subjects covered were Reading, Second Language Arts, Mathematics, Social Studies, Science, and Writing. In spring, the Metropolitan Achievement Tests, Elementary, were administered as part of the City-Wide Testing Program. With the publisher's permission, instructions for the non-reading section of the mathematics tests were translated for monolingual Spanish pupils. "Pruebas de Lectura" tested Spanish reading at the end of the year.

Findings

Monitor Tests

1. Reading

   Teachers were asked to report the reading levels of upper primary pupils in November, January, March, and June. Table XVIII, Appendix, shows the percent of English-dominant and Spanish-dominant reported at each reading level in both English and Spanish.

Criterion and achieved reading levels specified in objectives for the end of primary are shown in Table 8 and reflect the June report.

TABLE 8

END OF PRIMARY READING LEVELS

Group	English Reading Levels		Spanish Reading Levels	
	Criterion Level	Actual	Criterion Level	Actual
English-Dominant	8-12	78 percent achievement	1 level per semester	Nov=Level 5.2 June=Level 7.8
Spanish-Dominant	6 or higher	28 percent achievement	8 or higher	91 percent achievement

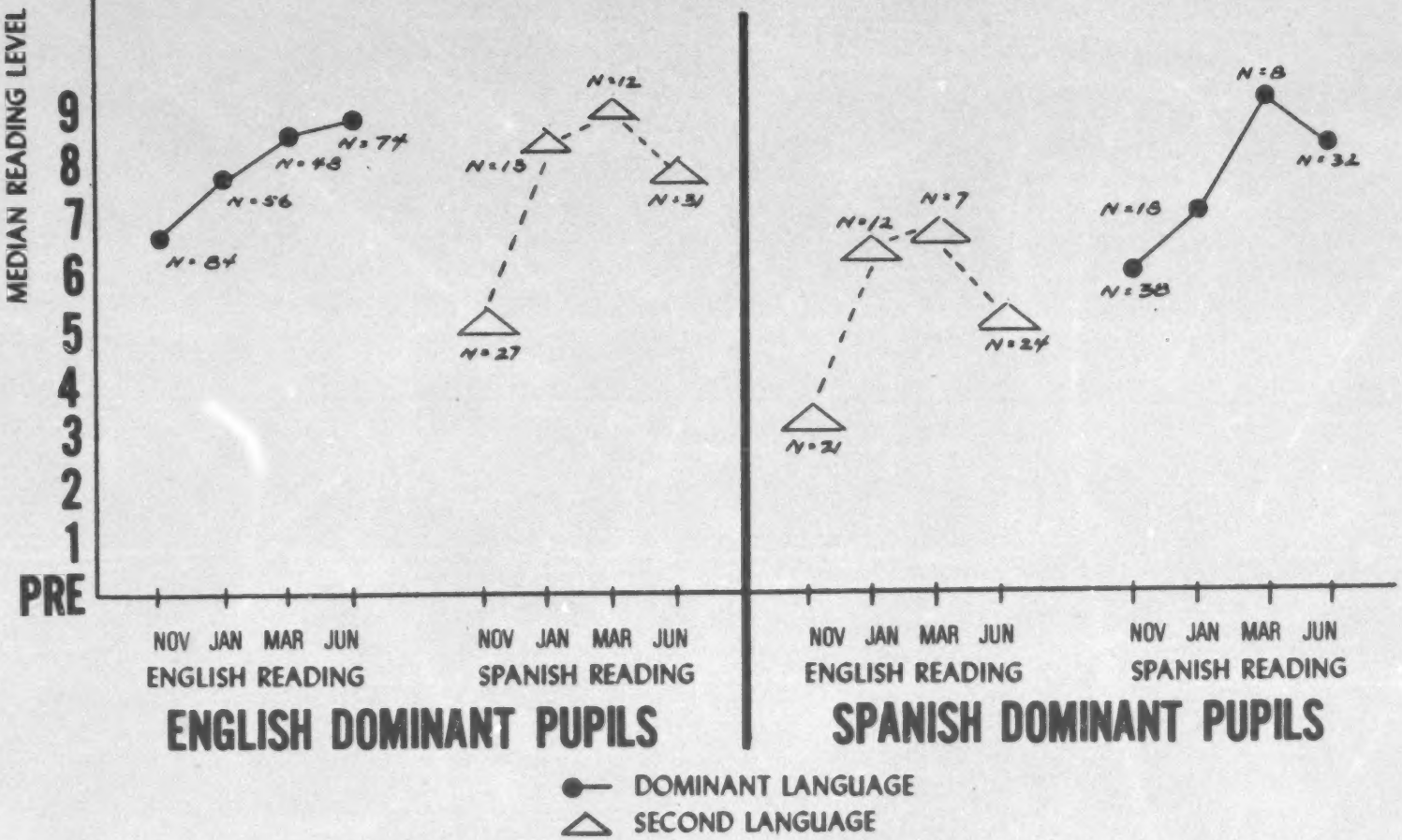
Criterion reading levels in their first language were reached by large proportions of pupils. English-dominant pupils who could read Spanish achieved the gain of one level per semester, but only 41 percent were reading bilingually. Most Spanish-dominant pupils had not reached the criterion level in English reading, but 75 percent were reading bilingually.

In June, the median first language reading levels were 8.8 for English-dominant and 8.1 for Spanish-dominant. The median is the middle rank. Half of the pupils were in the higher levels and half in lower levels. Figure 10 illustrates the median reading levels of Spanish-dominant and English-dominant pupils in their dominant and second languages. It shows steady progress through March followed by lower Spanish levels for Spanish-dominant pupils and lower second language reading levels for both groups.

FIG. 10

FIRST AND SECOND LANGUAGE MEDIAN READING LEVELS

UPPER PRIMARY



2. Mathematics

In November, upper primary pupils were tested on a 25-item quiz covering nine objectives selected by bilingual teachers. In spring, 96 pupils took the monitor test given to ESEA Title I upper primary math project pupils. Ten Bilingual Program upper primary pupils were enrolled in the Title I Math Project. The test had two items for each of nine objectives. Bilingual Program performance is compared with Title I performance in Table 9.

TABLE 9

COMPARISON OF BILINGUAL PROGRAM AND TITLE I ELEMENTARY MATH UPPER PRIMARY PUPILS ON SPRING 1976 MONITOR TEST

	N	Percent Achievement								
		Objectives								
		1	2	3	4	5	6	7	8	9
Bilingual Pupils	96	64	58	60	76	67	72	49	61	81
Title I Math Pupils	1,104	66	65	75	79	70	59	65	69	88

Bilingual Program achievement was close to Title I and excelled on Item 6, writing an addition and subtraction sentence for number lines. Less than 50 percent of bilingual pupils were able to find the sums and differences of one- and two-digit numbers without regrouping.

3. Social Studies

Social studies was monitored as a group activity in December. Ten questions were based on objectives selected by a teacher committee. Three schools participated. All groups were successful on more than

half the items. "Define the term 'ethnic group'" was the most difficult item in terms of errors.

4. Science

All schools monitored science by setting up two experiments suggested by the teacher committee. As classroom groups, pupils performed seven tasks which were about 50 percent successful in terms of pupil participation. Recording predictions and results was the activity in which fewest knew how to participate.

5. Second Language

In November, four schools monitored understanding and speaking in the second language of 82 pupils, 23 in English (ESL) and 59 in Spanish (SSL). Sixty-nine percent were successful in all ESL items and 52 percent knew almost all SSL items.

Forty-four pupils were monitored in second language reading. Eighteen ESL students were rated 33 to 83 percent successful and 26 SSL students were 61 to 100 percent successful.

Twenty-eight pupils, 14 in each language, were monitored in second language writing. They were rated 21 to 100 percent successful on English items and 21 to 85 percent successful on Spanish. Tables VIII, IX, and XV, Appendix, contain details.

Metropolitan Achievement Tests, Elementary

Upper primary pupils were tested by classroom teachers as part of the City-Wide Testing Program. Monolingual Spanish pupils had only the mathematics subtests, which did not require reading and for which Spanish instructions had

had been written with the publisher's permission. Comparisons were made of:

1. Bilingual Program and Title I Reading Center Program pupils
2. Bilingual Program and Title I Elementary Mathematics Program pupils
3. Bilingual Program pupils tested in math with English or Spanish instructions
4. performance of Title VII pupils in or not in Title I reading and math programs
5. performance of Title VII pupils in or not in Bilingual Reading Centers

Outcomes are presented graphically in Figure 11. Statistics are in Tables XIX, XX, and XXI, Appendix.

Findings revealed that:

-- in reading tests, Bilingual Program pupils scored higher (Stanine 4, average range on national norms) than pupils in the Title I Reading Centers (Stanines 2 and 3, low, on national norms).

-- in math tests, Bilingual Program pupils scored higher (Stanine 4 on national norms) than pupils in the Title I Elementary Mathematics Program (Stanine 3 on national norms).

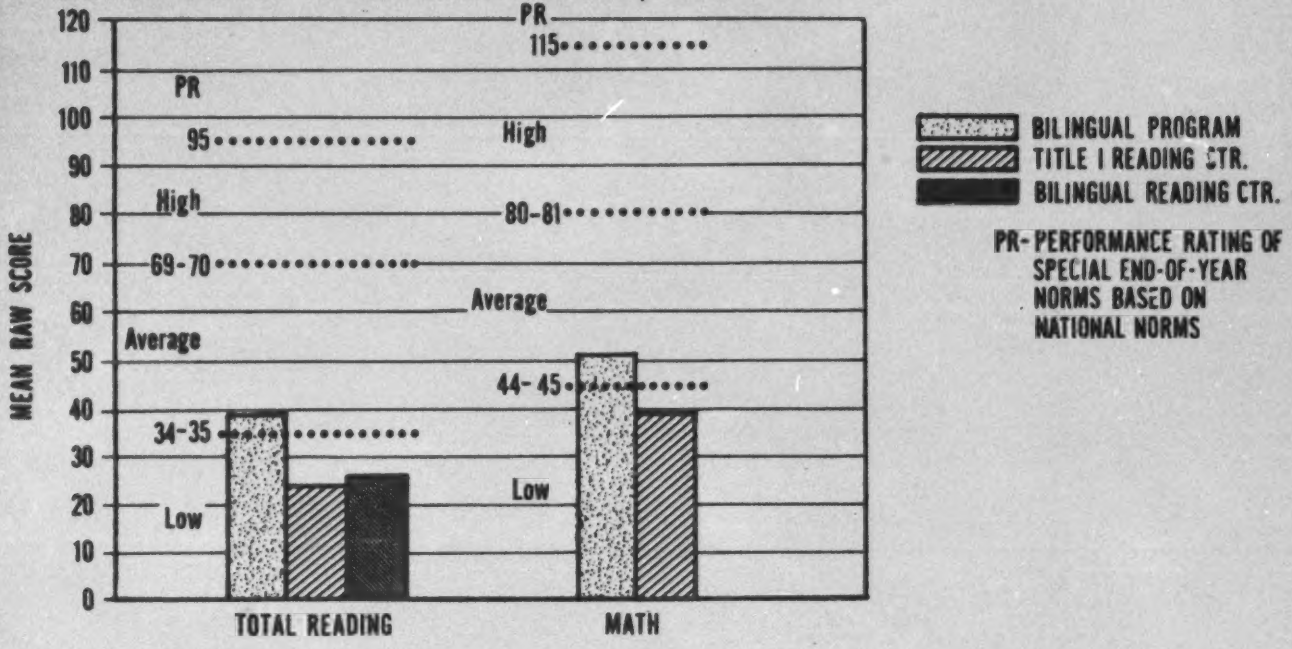
-- pupils tested with Spanish instructions on math computation scored lower (Stanine 3) than those tested in English (Stanine 4).

-- Title VII bilingual pupils in Title I Reading Center and Mathematics Programs did not score differently than those in the Title VII program only.

-- pupils who did not attend the Bilingual Reading Center scored higher than those who did.

-- the Metropolitan Achievement Tests, Primary 1, taken at the end of middle primary, had statistically significant correlations with and were good predictors of reading and math achievement on MAT Elementary at the end of upper primary (N=57 reading, 62 math, .r=.057 and R^2=32% both math and reading).

11 UPPER PRIMARY PERFORMANCE ON THE METROPOLITAN ACHIEVEMENT TESTS, 1976



These findings suggest that Bilingual Program pupils were served very well by the materials and methods used within the bilingual classroom. However, pupils who received special instruction because of lack of skills outside the classroom may have profited from it. Further study of the effect of instruction outside the bilingual classroom would be in order.

Pruebas de Lectura

The development of reading skills in both English and Spanish was a program goal for the end of primary.

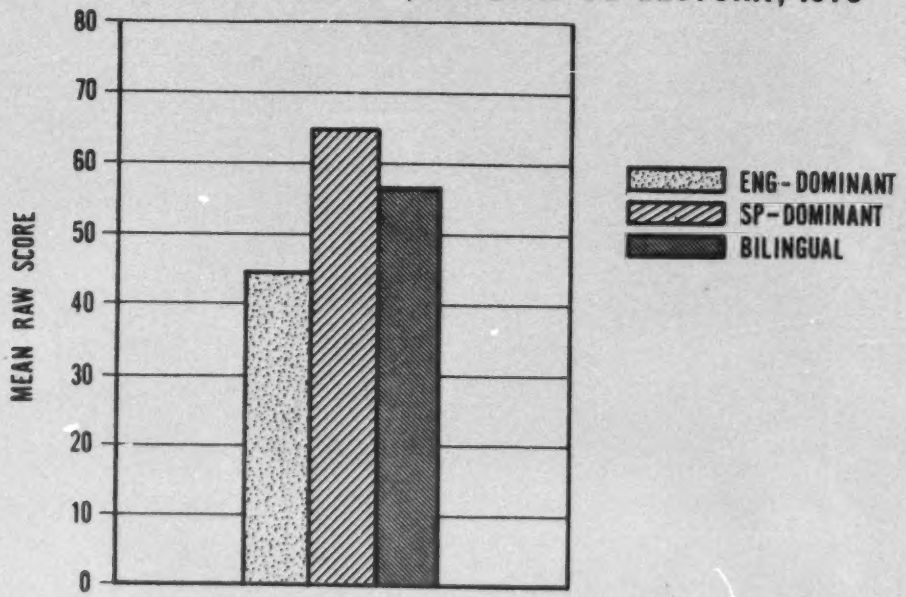
Testing for Spanish reading ability was done at the end of the year with Guidance Testing Associates' "Pruebas de Lectura", Level 1 (Grades 1 and 2) or Level 2 (Grades 2 and 3), according to Spanish reading level. Results are

detailed in Tables XXII and XXIII, Appendix, and pictured in Figure 12.

Forty pupils took Level 1. The maximum possible total reading score was 80. An analysis by language dominance revealed that Spanish-dominant pupils averaged 65.3, bilingual averaged 57.4, and English-dominant averaged 45.1, in the expected order.

At Level 2, the 53 pupils averaged 63.8 of a possible 110 on total reading. This score ranks in the 95th percentile on tentative norms developed in New York City for third-grade Spanish-speaking pupils in English language schools. It is between the 60th and 65th percentile of urban scores for third grade on an island-wide administration in Puerto Rico in Spring 1967(2).

fig.12 UPPER PRIMARY ACHIEVEMENT IN SPANISH READING, PRUEBAS DE LECTURA, 1976



These comparisons are evidence that the program met its goals for Spanish reading.

Summary

By the end of primary, Bilingual Program pupils scored in the average range on standardized tests of English reading and mathematics. The previous trend toward a lag in grade-level performance at upper primary did not occur. Instead, a lag was in evidence at middle primary when many pupils were introduced to second language reading. In past years when the switch was made at upper primary, the lag was ascribed to temporary interference, as fourth-grade performance returned to grade-level achievement.

Bilingual Program pupils demonstrated higher achievement than pupils in Title I Reading and Mathematics Programs. Their Spanish reading achievement was high compared with a similar group in New York and above the median for Puerto Rican pupils. Goals for first and second language progress and math achievement were attained.

Achievement in the areas of science and social studies was tested only in group monitor sessions. The facts that only half the schools participated in the social studies monitor and only half the students participated in the science monitor suggests that these areas need to be included on a regularly scheduled basis to insure grade-level achievement.

Additional Data

Spanish Reading

The evaluation of Spanish reading at the primary level has been difficult because teachers found the few existing instruments unsuitable to the curriculum and irrelevant for their population. Several steps were taken this year to solve the problem.

1. The System for Objectives-Based Evaluation of Reading-Spanish (SOBER-Español) was adopted by the primary staff. A teacher committee selected objectives for each grade level from a pool provided by the system's author, Ricardo Cornejo. The publisher, Science Research Associates, Inc., then printed tests for Grades 1, 2, and 3, with three items for each objective. They will be used as placement and posttests starting in September 1976. During the summer, a staff teacher developed a Spanish Reading Continuum and a series of quizzes based on the selected objectives, and the supervising teacher developed a mid-term monitor test for each grade level.

2. The problem of assessing Spanish reading comprehension was tackled by Dr. Oscar Ozete, Professor of Spanish, University of Wisconsin-Madison. For his college students, Dr. Ozete had developed the Reading Input Test (Structure) and the Paraphrase Test[3] (Meaning). The work was initiated to meet a need for tests of reading comprehension specifi-

cally fitted to the "bicultural/bicognitive learning style" of Spanish-American students, which is humanistic rather than analytic. Language and heritage were also considerations in test development.

The tests are built around a selected paragraph wherein every fifth word is a test item. The Input Test utilizes a modified Cloze procedure requiring the student to choose between the correct response and a distractor. The Paraphrase Test is a three-choice multiple-choice test of the meaning of words and phrases from the same paragraph. Dr. Ozete adapted the test for the Bilingual Program upper primary pupils, using a paragraph selected by a staff member. Following a field test on Bilingual Program fourth and fifth graders at Vieau School, the format was modified.

Upper primary Bilingual Program pupils were tested in June at four schools. Statistical analyses of the Vieau field test and third-grade test showed positive correlations (significant beyond the .01 level of confidence) between the subtests and total score and between language dominance and Spanish reading levels. Test scores were not correlated significantly with sex. As shown in Table XXIV, Appendix, third graders found the test much more difficult than the fourth- and fifth-grade field test groups. The conclusion from the pilot year is that the format and reading selection could not be handled by third graders. During the next year, the test will be modified for third grade, the crucial year when the majority of pupils are introduced to reading in their second language. Additional tests of Spanish reading skills will be developed at a variety of reading levels for the specific learning style of the Bilingual Program population.

Itinerant Teacher

A person qualified to fill the new itinerant teacher position was not located until January 1976. At that time, service began at Bruce Guadalupe Community School. In the morning, ten monolingual Spanish pupils, Grades 1 through 8, met with the itinerant teacher in three groups to learn Spanish reading and math (first grade) and English reading and language arts (second to eighth grade). The principal reported her Title VII pupils had more self-confidence and were better able to keep up with their regular classes.

In the afternoon, the teacher taught math to 14 Spanish monolingual students in Grades 4, 5, and 6 at Vieau School. Testing was limited to Addison-Wesley Spanish math review tests at the pupils' progress level. With her Vieau pupils, the teacher noted an increase in pupil communication with their peers and herself and greater self-confidence. The itinerant teacher program will not be repeated in 1976-1977 because of budget limitations.

Pupil Attitude

Of the eight elementary Bilingual Program goals, two deal with attitudes: "To cultivate in Spanish-speaking pupils a pride in their native language and culture and a more positive self-image as they make the transition to another culture and language" and "To promote in the English-speaking children a personal awareness and respect for the cultural values of the Spanish-speaking people". These attitudes were assessed at the end of third grade by comparing samples of program and non-program pupils.

Primary Self-Concept Inventory

The Primary Self-Concept Inventory, a test measuring self-concept relevant to school success, was administered by a bilingual tester to one third-grade class at two northside and two southside schools. One on each side was a Bilingual Program class and the other school had Spanish-surnamed pupils but no bilingual program. Pupils were asked to mark the child most like themselves in 18 boy or girl pictures of pupils in positive or negative roles. No reading was required. Instructions were in English and Spanish. The test was designed to measure self-concept in three domains: personal self, social self, and intellectual self. A total score of 13 or lower signifies "an undesirably low self-concept". A typical pupil should score high. All groups scored near or above 13 (Table XXV, Appendix). Girls in the southside bilingual class scored significantly higher than the boys in their class and girls in the regular

class. There were no overall differences between bilingual and regular program boys or between boys and girls in the regular program. Teachers from the regular classroom said they did not believe a bilingual program would benefit their Spanish-background pupils. The outcome of this test failed to demonstrate a positive relationship between the Bilingual Program and self-concept.

Cultural Attitude Scale

At the end of third grade, Vieau School Bilingual Program and non-program pupils were compared on attitudes toward and knowledge of the Anglo-American, Mexican-American, and Puerto Rican cultures. The Cultural Attitude Scale for each group had pictures of 15 typical items (e.g., the flag and ethnic foods). A bilingual tester read instructions in English and/or Spanish. Pupils indicated their opinions by checking one of five happy to said faces or a puzzled face signifying lack of knowledge. Test booklets of the three cultures were randomly assigned to 26 Bilingual Program and 25 non-program third graders, mainly Spanish surnamed. On the five-point "very sad" to "very happy" scale, both groups registered neutral to positive feelings about the three cultures. The one significant difference indicated a more positive attitude toward Mexican-Americans by the program group (Table XXVI, Appendix). There were no significant differences in cultural knowledge, and the average scores were high on the 15-point scale. Vieau School was in its seventh year of the Bilingual Program. The outcome of high cultural knowledge by both groups illustrates a penetration of the program beyond classroom walls. This outcome is statistical verification of the obvious permeation of the program throughout the school building. The positive attitudes by and toward Mexican-Americans, who represented the greatest proportion of the school population, confirmed attainment of the self-concept goals.

Teacher Interviews

Interviews with kindergarten teachers revealed the following problems and achievements.

Problems

-- The Vieau teacher noted that supportive services personnel (psychologist, speech therapist, social worker) did not follow through beyond the initial data collection or testing stage. There was no treatment of referred pupils.

-- The bilingual kindergarten teacher at Kagel found the team teaching arrangement unsatisfactory and recommended an all-day kindergarten to provide extra time for improvement of readiness skills.

-- Teachers of half-day kindergartens agreed that entering Spanish-American children lacked the usual skills such as the ability to use scissors and crayons to identify colors and to count. They recommended All-Day Kindergarten in order to prepare children for first-grade work.

-- An All-Day Kindergarten teacher felt that the Level 1 Metropolitan Readiness Tests should be administered at mid-year, as designed.

-- Spanish language arts was difficult to monitor.

-- There is a need for Spanish readiness materials.

Accomplishments

-- Group performance tests which were developed to monitor achievement were enjoyable for children and teachers.

-- Vieau pupils entered kindergarten better prepared than in previous years, particularly those whose older brothers or sisters had been in the Bilingual Program.

-- Materials were of good quality.

When primary teachers were interviewed at the end of the year, the following problems and accomplishments were identified.

Problems

-- It was difficult to manage multiple-level English and Spanish reading groups within a single classroom. Assignment of specific reading levels to specific teachers across classrooms was recommended.

-- There is a need for a Spanish reading skills continuum similar to the Milwaukee Public Schools English continuum and for accompanying audio/visual and three-dimensional materials.

-- Parents attended school programs at night but did not meet with teachers on conference days.

-- There was a need for replacements for consumable Addison-Wesley Spanish mathematics books. The time needed by teachers to translate English math books into Spanish resulted in Spanish-speaking children falling behind in math.

-- The Title I Math Center at Allen-Field School needs a bilingual aide to assist monolingual Spanish speakers.

-- Math monitor tests should follow the sequence of the text used in each school, Addison-Wesley or Random House.

-- Clothing was not obtainable through Title VII. Children who lacked winter clothing for school attendance could obtain it only through enrollment in Title I programs.

-- Some pupils resisted speaking Spanish at school because of pressure at home to learn English.

-- One classroom was disrupted by problem children who did not receive Title I supportive services and whose parents refused placement for them in special classes.

-- It was difficult to ascertain the language dominance of lower primary pupils who had completed kindergarten in a monolingual program. The James Language Dominance Test should be given during the first week of school.

-- Maintaining individual pupil records on the Spanish Language Arts checklist was difficult. A teacher guide for scope and sequence would be preferable.

-- Many applicants for bilingual aide were poor speakers of Spanish or English. Aide applicants should be screened for language ability.

-- Expansion of the program is not possible in schools where the bilingual teacher would have to replace a tenured teacher.

Accomplishments

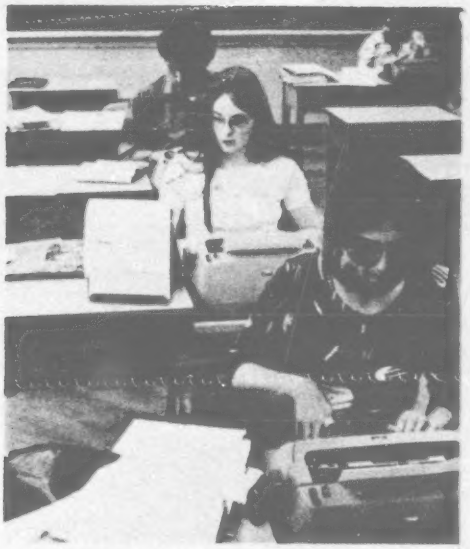
-- Group monitor tests were enjoyable.

-- Bilingual Program fifth and sixth graders were not embarrassed to speak Spanish as were Hispanics in the regular class.

-- Reading in two languages reinforced general comprehension skills, motivated pupils to read more, and maintained interest in reading.

-- Teachers in new Bilingual Program schools observed great progress in learning, more cultural programs, and more fun in learning.

Secondary Evaluation



SECONDARY EVALUATION

The five schools serving Title VII secondary students were Kosciuszko and Wells Junior High Schools, South Division and West Division Senior High Schools, and Lincoln Junior/Senior High School.

Of an unduplicated count of 403 enrolled in November, 42 percent were of Mexican background, 57 percent Puerto Rican, and one percent other. Ninety-five percent were classified as bilingual, 59 percent English dominant, and 41 percent Spanish dominant. Five percent were monolingual English or Spanish. A total of 492 pupils were served in the four Title VII courses (a duplicated count including students enrolled in more than one course).

Table 10 describes the total enrollment, attrition, and language dominance by school and course of study. The duplicated count resulted in 50 percent English dominant and 40 percent Spanish dominant. Of these, 76 percent were bilingual. Eight percent were not reported.

Bilingual counselors or students' advisors provided guidance and information for Latin students.

TABLE 10

ATTRITION AND LANGUAGE DOMINANCE OF STUDENTS ENROLLED IN INNOVATIVE BILINGUAL COURSES AT THE SECONDARY LEVEL
DUPLICATED COUNT

Course of Study	Schools	Starting Enrollment	Adds	Drops	Total Served	Language Dominance			
						Number of English	Number of Spanish	Number of Those Who Are Bilingual	Number Whose Classification Was Not Reported
English for Latinos	Kosciuszko	40	17	17	57	17	40	54	0
	Wells	17	3	5	20	5	15	17	0
	West	31	6	13	37	19	18	18	0
	TOTAL	88	26	35	114	41 (36%)	73 (64%)	89 (78%)	0
Bilingual Typing	Lincoln	9	0	3	9	9	0	8	0
	South	25	2	4	27	4	21	17	2
	West	12	0	3	12	12	0	15	0
	TOTAL	46	2	10	48	25 (52%)	21 (44%)	40 (83%)	2 (4%)
Bilingual Career Orientation	South	15	2	0	17	0	4 (24%)	0	13 (76%)
Spanish for Spanish Speakers	Kosciuszko	142	20	15	162	122	21	138	19
	Lincoln	16	2	3	18	13	5	18	0
	South	74	10	7	84	13	64	52	7
	Wells	37	4	2	41	33	6	33	2
	West	7	1	6	8	2	5	7	1
	TOTAL	276	37	33	313	183 (59%)	101 (32%)	248 (79%)	29 (9%)
TOTAL PROGRAM		425	67	78	492	249 (50%)	199 (40%)	377 (76%)	44 (8%)

Career Orientation

Career Orientation was a new course developed to give Spanish background seniors the techniques needed to enroll in educational institutions and/or to enter the job market. The curriculum included assessment of individual interests and abilities, explanations of the career advantages of bilingual capability combined with certain vocational skills, exposure to career opportunities and requirements, and instruction in the processes of applying for employment and/or entrance into post-secondary education institutions. South Division High School housed the pilot program.

The program began second semester. The class met daily with the bilingual social studies teacher until April when a bilingual substitute teacher took over.

Seventeen students were enrolled; nine seniors, six juniors, and two sophomores. Interest by underclassmen had not been anticipated. Although Spanish was used for communication when necessary, English was emphasized as the language students were likely to encounter after high school graduation.

During program development, the curriculum specialist and the evaluator, working together, designed ways to determine specific student needs in career orientation. Students spent the first few days filling out a locally-devised Career Preparation Survey, a job application form, an Inventory of Interests, and a rating of the importance of such factors as appearance and experience in

getting a job at the entry level.

The initial curriculum content was based on student needs identified by the pretest findings. For example, instruction was given in how to complete a job application form. For career planning, a problem-solving approach was used which challenged students to probe their interests, skills, and values, and to use this self-analysis as a focus for setting goals. The process included determining what information was needed for career selection and how and where to obtain the information.

Field trips to Alverno College, the University of Wisconsin-Milwaukee, a television studio, bank, City Hall, Performing Arts Center, Manpower Training Institute, a building construction site, and the Milwaukee Area Technical College provided students with first-hand experiences. Career-related information and interchange were provided by visits to the classroom by a Hispanic social worker, students from one Minnesota and three Wisconsin colleges, a banker, and military and public service personnel.

Career Preparation Survey

The Career Preparation Survey, an English language instrument of 22 objective items which students were expected to know by the end of the course, was administered at the beginning and end of the course. The items related to general knowledge about college and job entrance. The posttest mean score (27.4) was significantly higher than the pretest (21.2), (Table XXVII, Appendix). Students had acquired important job information. Specifically, they were able to identify colleges or technical schools in their area of interest, sources of financial assistance, and job sources.

Job Application Form

Ten students completed a sample Wisconsin Telephone Company Employment Application Form at the beginning of the course and nine at the end. The pre/post percentage of errors decreased on nine items and increased on four (Table 11).

TABLE 11

PERCENT PRE/POST ERRORS ON JOB APPLICATION FORM

Type of Item	Type of Error	Percent Errors Pre N=10	Percent Errors Post N=9
Personal Data	Middle initial omitted	40	22
	Unnecessary information given	50	33
Education and Training	Omitted previous schools	60	33
	Incomplete address	30	22
	Dates omitted	20	22
Employment History	Incomplete address	70	0
	Jobs listed in reverse order	30	0
	Rate of pay omitted	30	11
	Incorrect employer name	40	22
	Reason for leaving omitted	10	22
	Dates omitted	10	11
Law Conviction Item Omitted		70	78
Signature Omitted		30	11

Inventory of Interests

At the beginning of the course, students completed English or Spanish language versions of the Inventory of Interests, a publication of Guidance Testing Associates. It enabled students to profile their interests as a basis for career planning. One hundred thirty-six occupations and 56 study subjects were included. In completing the Inventory,

— 50 percent omitted one or more responses.

-- 20 percent had an erroneous perception of the preparation necessary for a specific job.

-- 40 percent believed they did not have the ability to do work they would like to do.

These outcomes were the bases for class discussions.

Rating of Entry Level Job Factors

Early in 1975, Dr. Calvin McIntyre, the Career Education Supervisor, conducted a study(4) in which employers were requested to rate 19 factors according to their relative importance in the hiring of high school graduates for entry-level positions in five occupational areas: blue collar, secretarial/clerical, technical, sales, and personal service. Ninety Milwaukee employers in all fields responded. The employers assigned highest overall priority to attitude toward work, ability to get along with others, and mastery of basic skills. Employers assigned lowest rank to bilingual ability. Nine Career Orientation students responded to the same survey by rating any one of the job categories. None selected "Blue Collar". They agreed with employers on the high priority items but not on the low. For instance, bilingual ability was rated "important" by students. Students considered previous unrelated work experience least important. Table XXVIII, Appendix, indicates specific discrepancies between student perceptions and what employers value in a job applicant. This information was the basis for classroom discussion. For example, the low priority given to bilingual ability by employers focused attention on special careers requiring bilingual skills.

English for Latinos

English for Latinos was a pilot program developed to assist both English-dominant and Spanish-dominant students of limited English ability, improve their English language skills, and also to enable them to earn required English credits. The course was divided into two levels, seventh/eighth grade and ninth grade. It served 114 students at Kosciuszko and Wells Junior High Schools and West Division High School. Bilingual/bicultural teachers taught the regular curricula using Spanish and English to individualize instruction. Comprehension and production of oral and written English were stressed. The aim was to bring students out of the "twilight zone" which seemed to envelop those who had completed English as a Second Language. These students understood enough to "fake it" in regular classes but lacked sufficient English vocabulary and comprehension skills to succeed in school work.

Students took a Diagnostic English Test which had been developed by the secondary English supervisory staff for a language arts program. The test assessed Usage, Language, Composition, and Literature. An item analysis of pretest results was used prescriptively to individualize instruction.

Diagnostic English Test

Significant gains in Usage were made at Level 9 but not at Level 7-8 (Table XXIX, Appendix). The gain was not larger than the gain demonstrated on an equivalent form of the test in a February monitor.

The Composition test required students to write a theme on one of three titles, e.g., "My Best Friend", one paragraph for English 7-8 and three paragraphs for English 9. Those who were pre- and post-tested gained 38 percent in 7-8 and 20 percent in performance in English 9.

For Literature, English 7-8 students wrote a one- or two-sentence summary of a selection read to them and a short essay read silently. English 9 students read two selections and wrote one sentence relating each to their personal experiences (association) and one or two of factual explanation (explication). Table 12 shows the outcome for students who were both pre- and post-tested.

TABLE 12

PRE/POST ACHIEVEMENT
ENGLISH COMPOSITION AND LITERATURE

Test Period	Percent Correct				
	Composition		Literature		
	English 7-8	English 9	English 7-8 Summary	English 9 Association	English 9 Explication
September	31	10	25	10	10
May	69	30	67	20	50
Percent Gain	38	20	42	10	40

A six-item language test was included for Level 9. Tasks included the writing, expansion, transformation, coordination, and subordination of simple sentences. Students at Kosciuszko showed a statistically-significant pre/post increase from 0.4 to 2.6 correct on the six sentences. Wells students averaged zero both pre and post, and West Division averaged 1.17 pre with incomplete posttest data.

Teacher Interviews

At the end of the year, teachers were asked to relate the problems and accomplishments.

Problems

-- At one junior high, using a unit structure, scheduling pupils into English for Latinos was difficult. The teacher suggested that the problem might be solved if she were attached to the flexible unit system as a resource teacher who could work with the students on a daily basis.

-- Teachers found it difficult to work outside the school English department and expressed a need for some sort of liaison.

-- Many students who were failing because of poor English dropped out when they reached age 18 because they felt they could never graduate.

-- Wells students who had already passed English 9 and were feeding into West Division could not repeat English 9 for credit, although they continued to need assistance with English language arts.

-- Minor changes were suggested for the Diagnostic English Test to make it more relevant to Bilingual Program usage.

Accomplishments

-- Many initial problems in programming students into the course were resolved.

-- The program answered a need for students who would be "lost" in the standard English program.

-- The class size limit of 20 made possible individualized instruction by the teacher and aide.

-- Students who were failing because of language and who stayed in the program learned basic capitalization, punctuation, writing, and reading skills, and became better prepared for tenth-grade English.

-- Students developed a group identity and entered into more school activities.

Summary

English for Latinos was a pilot program to help students who lacked sufficient English language skills to succeed in regular classes. At the close of the pilot year, ninth graders demonstrated improvement in English usage, but the combined seventh/eighth grade classes did not. Gains of ten percent to 42 percent were demonstrated in composition and the written interpretation of literature.

The program was hampered by difficulties in scheduling students and lack of liaison with other English for Latinos teachers throughout the city and with other English teachers within the schools. Another problem is that, apparently, students above ninth-grade level who needed further training in basic skills were not guided into the existing Fundamentals of English course. English for Latinos had the positive effects of preparing students for participation in the regular high school English classes, enhancing group identity, and providing a basis for school success in many cases where the students' inadequate knowledge of English structure had resulted in failure.

Spanish for Spanish Speakers

Spanish for Spanish Speakers was developed at South Division in 1967, prior to the implementation of ESEA Title VII, to "further develop the knowledge and skills in Spanish that Spanish-background youth bring to the classroom". In 1975-1976, there were 14 classes at five schools. Although it has remained a locally-funded offering, the course has been basic to other secondary bilingual education programs. "Spanish for Spanish Speakers, A Guide for Teachers" was written with Title VII support. The program was included in the evaluation because of its linguistic association with the innovative courses assessed in 1975-1976.

Enrollment totalled 313 students at four ability levels. At Level 1 were those who understood Spanish but had limited speaking ability. At Level 2 were those who understood and spoke Spanish. Common to both levels was limited ability in reading and writing. Students in Level 3 and 4 could read and write Spanish. Five program goals aimed to enable students to become literate in standard Spanish and to enhance cultural pride and knowledge. Because of student differences in ability and background, much instruction was individualized.

Students were pre- and post-tested with the Pimsleur Spanish Proficiency Tests of Reading Comprehension and Writing Proficiency, judged by program staff to be the best available standardized Spanish tests at the secondary level. Each student was tested with Test A (first level) or C (second level). English instructions were translated into Spanish. A Speaking Test, devised by the staff, was administered at midyear. Teachers were to maintain individual comprehension,

speaking, reading, and writing progress records on a 42-item Student Achievement Record, Level 1 or 2.

Reading Comprehension

A total of 119 students were tested both pre and post. At both levels, A and C, significant gains were made (Table 13). On the posttest, average scores for Levels A and C fell in the seventh stanine (high range) on national norms for high school students taking Spanish as a Second Language. Table XXX. Appendix, gives results by school.

TABLE 13

PRE/POST ACHIEVEMENT
PIMSLEUR TEST OF SPANISH READING ACHIEVEMENT

Test Level	Test Period	N	$\bar{x}$**	SD	t
A	Pre	86	17.99	9.60	
	Post	86	23.07	8.46	8.39*
C	Pre	33	23.36	8.36	
	Post	33	27.33	6.19	3.37*

* Difference between pre/post means is significant at the .01 level of confidence

** Maximum Possible Score = 36

Writing Proficiency

Level A

The 80 students tested both pre and post scored significantly higher on the posttest and moved from the fifth to the seventh stanine on national

norms (Table 14). There was a significant positive correlation between grade level and scores (r=0.35-0.40), as shown in Table XXX, Appendix. Girls scored higher than boys; the correlation between sex and score was 0.22.

TABLE 14

PRE/POST ACHIEVEMENT
PIMSLEUR TESTS OF SPANISH WRITING PROFICIENCY

Test Level	Test Period	N	$\bar{x}$	SD	t
			Maximum Possible Score=75		
A	Pre	80	27.51	18.32	
	Post	80	42.58	18.77	11.57*
			Maximum Possible Score=82		
C	Pre	39	49.44	15.24	
	Post	39	57.72	14.74	5.49*

* Difference between pre/post means is significant at the .01 level of confidence

Level C

Table 14 indicates that significant gains were made in Spanish writing at Level C. The pretest mean fell in the seventh stanine and the posttest mean in the eighth on national norms, both in the high range. The high standard deviations at both levels indicate great variation in individual scores. Results by school are in Table XXXI, Appendix.

Oral Spanish

A speaking test, developed by the staff, required students to speak for three minutes on a chosen topic. Using a three-point scale (Excellent, Fair, or Poor), the talks were rated on Pronunciation, Intonation, and Fluency, variety of verb forms used correctly, and variety of sentence structure.

The highest possible score was 15. The 130 students tested averaged 10.85 on the total score, high in the "Fair" range. The standard deviation of 13.35 indicated a wide range of performance among individuals.

A teacher at South Division High School tested Spanish I students pre and post. The improvement in the use of oral Spanish was significant, as seen in Table 15.

TABLE 15

A COMPARISON OF PRE/POST PERFORMANCE ON THE SPANISH FOR SPANISH SPEAKERS SPEAKING TEST, SOUTH DIVISION

	N	$\bar{x}$	SD	t
Pre	39	7.21	2.49	
Post	39	10.85	2.85	13.56*

* Difference is significant at the .01 level

All 39 students were bilingual and the majority were Spanish dominant, but all needed to improve in order to reach the program criterion of standard Spanish usage.

Teacher Interviews

When Spanish for Spanish Speaker teachers were interviewed at the end of the year, the following problems and accomplishments were emphasized.

Problems

-- There is a need for high interest easy reading materials in Spanish at the secondary level.

-- The course needs a textbook and workbooks.

-- At Level 1, the teacher and pupils should have the same bilingual/ bicultural background.

-- Classes were not scheduled according to achievement or reading levels. The great diversity of ability was difficult.

-- In schools where they were a minority, many students did not want to speak Spanish. These students responded in English or a Spanish/ English mixture when spoken to in Spanish at home.

-- Many seventh and eighth graders were unable to enroll because they were allowed too few electives.

-- The Level A Pimsleur Tests were too difficult for students new to the course.

Accomplishments

-- Students overcame their resistance to the use of standard Spanish and alternate vocabulary used in a variety of Latin countries. This was evidence of an increased ethnic tolerance through the use of language.

-- Teachers noticed improvement in speaking and writing.

-- Enrollment has increased every year.

Summary

Spanish for Spanish Speakers served 313 students at five secondary schools. The program was effective in improving Spanish reading, writing, and speaking

skills across a wide range of achievement levels. Students increased their tolerance for standard Spanish and for vocabulary differences representing Latin backgrounds other than their own. The lack of existing beginning-level reading materials of interest to high school students was a challenge for teachers.

The mixture of achievement levels in the classroom resulted in difficulties which would be avoided if beginners were separated from advanced students.

Bilingual Typing I and II

In 1975-1976, the first course in bilingual typing in the nation was offered at three secondary schools, Lincoln, South Division, and West Division High Schools. The purpose was to facilitate the acquisition of typing skills by . . .

-- monolingual Spanish students.

-- limited English ability students.

-- English-dominant students who wished to acquire bilingual typing facility.

It was believed that such training could increase the job potential for secretarial work. During two weeks in the summer of 1975, working with curriculum specialists and supervisors, a Business Education teacher and a bilingual teacher from South Division began to develop the course that they would teach as a team. A daily joint preparation period during the school year enabled them to modify teaching strategies and to complete the publication, "Bilingual Typing and Business Correspondence at the Secondary Level". Three staffing and process alternatives were designed to facilitate programming under differing school conditions, for a bilingual/bicultural Business Education teacher is a rarity. Two of the plans were initiated in Milwaukee in 1975-1976:

1. At South Division High School, an English-speaking Business Education teacher and a bilingual teacher teamed to teach one class of Typing I. English and Spanish were used as the classroom language on alternate

days. Typing practice alternated between English and Spanish on the basis of two consecutive days. The fifth day was used for individualized instruction. Students were expected to learn to type in both languages. The addition of one class in Typing II is planned for 1976-1977.

2. A bilingual Business Education teacher divided her daily time between one class at Lincoln (Typing I) and two at West Division (Typing I and II) High Schools. The daily period was divided into English and Spanish. Students used their dominant language.

English and Spanish books and materials were provided. At the end of the year, the Bilingual Counselor at South Division High School helped students get summer jobs which required typing skills. Students were encouraged to enroll concurrently in Spanish for Spanish Speakers, Business Education (Typing I), and Spanish Business Correspondence commencing September 1976 (Typing II).

Typing I and II Achievement Tests

Equivalent English and Spanish achievement tests for both Bilingual Typing I and Typing II were developed by the teaching staff.

For the September pretest, the Typing I test included identification of the parts of a typewriter, word division, taking dictation in longhand, and proofreading. Timed typing was added to the posttest. South Division teachers also assessed letter form and tabulation form at the end of Typing I. The Typing II test included parts of the typewriter, word division, translation from English to Spanish and Spanish to English, addressing an envelope, and

timed typing. Because of a few variations in the basic test format, the team teacher school and bilingual Business Education teacher schools are presented separately in Table XXXII, Appendix, for those students who had both the pre and posttest.

By year's end, Typing I students at South Division learned to identify typewriter parts, to proofread in English and Spanish, and to type well above the criterion of 20 words per minute in both languages. Average errors exceeded the criterion of one per minute. The Lincoln/West group, operating in either English or Spanish, also were successful in learning typewriter parts, proofreading, and typing more than the criterion of 20 words per minute in one language. Errors were not recorded.

Neither group improved in word division.

Students did not improve in taking dictation in longhand in two languages. This was not considered to be a problem, as shorthand is usually used for taking dictation. Lincoln/West had a change in dictation format which precluded comparison. There was a significant pre/post gain in proofreading.

At year's end, the South Division team rated students 94 percent satisfactory on typing a business letter and 44 percent satisfactory on typing a tabulation form.

Only two of the four students in Typing II were tested pre and post, too few for program assessment. They achieved the criterion of 40 words per minute with no more than one error per minute in English only.

Student Questionnaire

South Division bilingual typing teachers surveyed their class in January. All 20 students said they like the class and would recommend it to friends because it improved their English and Spanish, prepared them for jobs in the community, and taught useful skills for the future. All were satisfied with the teaching, particularly the bilingual instruction and the time spent in individual instruction. Most of the students, being English dominant, indicated that the English study guides were easier to understand than the Spanish. All 20 reported that they were improving skills in their weaker language while learning to type in that language. Sixteen planned to enroll in Typing II the following year. Only five were able to practice at home, but 16 reported that they practiced in the classroom during lunch or study halls.

Teacher Interviews

At end-of-year interviews, bilingual typing teachers identified the problems and accomplishments.

Problems

-- The use at South Division of English typewriters with interchangeable Spanish letters interfered with learning because there were differences in the position of the symbols on the keyboard. This factor reduced speed and accuracy. Although teachers said that Spanish typewriters are needed, they were not ordered.

-- Unlike English typing textbooks, Spanish books lacked sufficient drill work. Teachers spent a great deal of time preparing supplementary material.

-- There was not sufficient class time to teach word division, a skill which students needed to develop. Class time was used for typing, as students did not have machines at home on which to practice. Teachers suggested that word division be stressed in English as a Second Language (ESL) classes.

Accomplishments

-- At South Division, students who started the year as monolingual speakers of English or Spanish were able to follow the textbook and oral instructions in their second language by the end of the year.

-- The team teaching at South Division worked well because both teachers had a positive attitude and planned together for a structured course.

-- Project attendance was excellent.

-- Students appeared to enjoy the class and had a positive attitude.

Summary

Bilingual Typing was developed as a highly-structured course with a Teacher's Guide to provide explicit direction on objectives, structure, process, testing, and materials. Some factors contributing to its success as an innovative program were:

-- the assistance of counselor in helping students find jobs requiring typing skills

-- competent, creative teachers

-- planning time

-- cooperation of school administration

-- guidance by Central Office curriculum experts

-- flexibility

-- counseling of students to enroll in related business and Spanish language courses

The outcome was a program in which many students successfully combined the learning of a second language with a motor skill that was an asset for employment. Students had problems with word division. It might be prudent to provide training in word division in English for Latinos and Spanish for Spanish Speakers as well as ESL classes. The language requirements for Typing I should

be uniform across the program. Different language requirements (English or Spanish vs. both English and Spanish) resulted in different typing programs. The bilingual requirement ought to be enforced for Typing II.

The Curriculum Specialist for Business Education recommended that these students be encouraged to learn shorthand.

Additional Data

Student Survey

A student survey was conducted in spring in Spanish for Spanish Speakers classes. Table XXXIII, Appendix, indicates responses of the 204 students surveyed. Almost three quarters (73 percent) responded in Spanish and, of these, 65 percent indicated that Spanish was their first language. Both Spanish and English responding groups reported great improvement in Spanish language skills and some improvement in English. About 60 percent noted that their school achievement was better than the previous year. Spanish language skills headed the list of learnings acquired through the Bilingual Program for both groups, followed by community problems by the Spanish respondents and Latin-American history by the English respondents. Sixty-five percent believed that the Bilingual Program helped to prepare them for life after graduation. Strong program endorsement came from 87 percent who would recommend bilingual education to others. As a whole, students agreed that neither culture was over-emphasized. Over half (54 percent) said they would learn more if homework were assigned. After graduation, about 50 percent planned to work and 45 percent to continue their education.

In summary, through the Bilingual Program, secondary Hispanic students gained a working familiarity with the language, culture, and current sociology of their ethnic group. Most of them were doing better in their schoolwork and felt more prepared for life in the adult world. The goals of cultural pride

and positive self-concept were reflected in the majority selection of the Spanish version of the survey, a marked contrast to the first years of the Bilingual Program when the majority selection was English. The positive response to the suggestion of homework might be considered in curriculum design to accommodate students who wish a chance to go farther or dig deeper.

Teacher Interviews

In addition to problems and accomplishments previously reported in the specific subject areas, teachers commented on:

Bilingual Reading Centers

Individual assistance given to students in the Bilingual Reading Centers was very helpful. Bilingual reading teachers and aides worked with individuals who had difficulty in regular classrooms by explaining course work concepts in Spanish. For example, some Spanish-dominant students who had problems trying to understand English science or math classes and texts were able to grasp the material once the gap was bridged by a Spanish explanation.

Spanish-dominant students also received help in reading both languages. As one teacher said, most ninth- and tenth-grade students were reading at second- to fourth-grade levels in September whether their past schooling was here or abroad. "Wherever they went to schools, nobody paid attention to them -- they were lost." Reading Center teachers taught basic skills starting at the necessary level. One Bilingual Reading Center teacher noted that the 1975-1976 seventh graders were different from previous years in that they were proud of being Spanish, wanted to learn to read Spanish, and

were at a higher level of English decoding skills (although English comprehension remained low). The two original Bilingual Reading Centers were started with Title VII funds.

Bilingual Guidance

Four locally-funded bilingual guidance counselors assisted students in Title VII programs. One counselor suggested that:

-- credit earned after school hours in outside educational institutions (e.g., Milwaukee Area Technical College) should be approved to apply toward high school graduation.

-- the dual requirements that 14 (of 18) credits be earned in the graduating school and that three years be spent in the graduating school encourage truancy. Either the credit requirement should be increased to 20 or the years in school reduced.

-- scheduling students who enter during the year into bilingual programs was difficult because classes were filled.

-- a scarcity of part-time jobs contributed to truancy. Those who found work were not truant. Those who wanted work but found no job became truant while taking time off to seek work.

-- a student should have the option to drop a class if he feels he gets nothing from it.

-- bilingual courses are needed in math and science.

Departmental Status

Some teachers felt that non-bilingual staff would learn to understand the need for program expansion if the Bilingual Program were recognized as a department at the Central Office and within the schools. In addition, materials and curricula could be coordinated between schools, and teachers could cooperate with other departments on an equal basis.

Graduates

The proportion of Hispano graduates to school total at the Title VII high schools is shown in Table 16.

TABLE 16

A COMPARISON OF HISPANIC
WITH TOTAL GRADUATES AT THREE SCHOOLS 1976

School	Population			Graduates		
	Total	Number Hispanic	Percent Hispanic	Total	Number Hispanic	Percent Hispanic
Lincoln	1,399	130	9%	107	8	7%
South Division	1,606	361	22%	380	46	12%
West Division	1,138	73	6%	216	7	3%

Counselors reported that the Bilingual Program produced more Hispanic high school graduates, more college-bound students, and more job-oriented students than ever before.

Eighty percent of the graduates at South Division planned to continue their education. Two of the ten students who graduated with honors were in the Bilingual Program. Nine of 34 South Division students elected to the National Honor Society were Latins and six of these were in the Bilingual Program.

A Lincoln Bilingual Program graduate ranked third in the class. Of the eight graduates, five planned to continue their education and three to marry.

External Evaluation

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EXTERNAL EVALUATION

Educational Resource Team Critique

A team of curriculum specialists from the Wisconsin State Department of Public Instruction have been advisory to the Milwaukee Bilingual Program since it began in 1969. Joined by a UW-M professor of Spanish, they conducted the annual two-day classroom visitation and bilingual staff meeting in January 1976. Their recommendations included:

- -- assigning homework in order to cover the secondary science, mathematics, and social studies content.
- -- programming bilingual students at the end of the school year and accommodating them in scheduling classes.
- -- introducing social sciences in bilingual seventh and eighth grades and at West Division High School.
- -- developing conversational and writing skills in Spanish for Spanish Speakers by having class discussions and small group work.
- -- screening English for Latino students for oral articulation and reading ability.
- -- giving primary pupils more opportunities for discussion and creative writing.
- -- using Science Curriculum Improvement Study (SCIS) at all primary schools and replacing consumable materials.
- -- using manipulative materials in teaching primary math.
- -- developing interest centers, creating and using manipulative materials, and setting up tasks responding to needs of primary children.
- -- encouraging communication by teachers with the regular school staff.
- -- maintaining high expectations for pupil performance.

-- decreasing the amount of data collection so that it will not interfere with instruction.

-- providing a central supply area for distribution and maintenance of bilingual materials.

Opinion Surveys

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OPINION SURVEYS

Parent Survey

Due to the press of other activities in the parent organization, City-Wide Bilingual/Bicultural Advisory Committee (CWBBAC), parent involvement in the evaluation process in 1975-1976 was limited to responding to a year-end Spanish/English questionnaire.

Forty-six parents responded to the anonymous survey. Seventy-three percent of their children were in primary, 20 percent in Grades 4 through 9, and seven percent in Grades 10 through 12.

As reported in Table XXXIV, Appendix, parents felt the program goals were being accomplished for their children in first and second language skills, progress in school work, and pride in their Latin heritage. Seventy percent endorsed homework for elementary and over one-third for secondary students. Although only around half knew the acronym for their parent organization, their answers indicate that the CWBBAC and parent coordinator's office was successful in encouraging parents to visit the schools.

Teacher Survey

Nineteen of the 37 teachers responded to a year-end survey. Table 17 shows teacher ratings of 1975-1976 progress toward five Bilingual Program goals.

TABLE 17

TEACHER RATING OF PROGRESS TOWARD GOALS

Bilingual Program Goals	Percent Response: Good Progress *E %	Good Progress S %	A Little Progress E %	A Little Progress S %	No Progress E %	No Progress S %
1. Students' bilingual literacy and fluency	50	44	40	56		
2. Grade level achievement	90	33	10	33		
3. Improved student self-esteem	90	89	10	11		
4. Coordination of Bilingual Program with the regular school program	50	22	50	56		11
5. Parent/community involvement	60	11	30	44	10	33

* E = Elementary teachers, N=10
S = Secondary teachers, N=9

Other questions were based on issues raised by the Educational Resource Team. Teacher responses are shown in Table 18.

TABLE 18

TEACHER RESPONSE TO RESOURCE TEAM ISSUES

Questions	Percent Response: Yes *E %	Yes S %	No E %	No S %	No Response E %	No Response S %
6. Do you assign homework?	50	67	50	33		
7. Would you like to assign homework?	50	56	30	22		12
8. Do you have good communication with the Bilingual Program staff?	90	89	10			11
9. Do you have good communication with the rest of the school staff?	100	67				33
10. Do you need a central supply area for distribution and maintenance of bilingual materials?	80	89	10	11	10	

* E = Elementary teachers, N=10
S = Secondary teachers, N=9

Fifty-five percent enrolled in bilingual education courses at Alverno or UW-M. Half or more had completed basic courses in Spanish and in Reading. Ninety percent characterized their job as "challenging", 22 percent as "fulfilling", 15 percent as "rewarding", and none as "frustrating" or "unrewarding".

With students at various language and reading levels, teachers were asked how they individualized reading instruction. They replied, for the most part, by grouping according to language proficiency and reading ability. Secondary teachers tested students to determine ability.

Suggestions for evaluation and monitoring included simplification, all testing and scoring by Research Department, and more evaluation dealing with methodology. Suggestions for improved communication within the program included more meetings with and visits from supervisors, circulation of a newsletter, feedback from the city-wide committee (CWBBAC), more workshops, formation of a teacher organization, intercommunication between schools, and informal get-togethers. Asked to identify the main factors accounting for differences in reading skills, teachers emphasized differences in . . .

-- intelligence
-- background
-- motivation
-- chronological age
-- mental age
-- home experience
-- development or readiness skills*
-- parental interest
-- quality and quantity of previous education**
-- study habits**
-- lack of continuity in schooling**

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* = Elementary only
** = Secondary only
No Asterisk = Common to both elementary and secondary

Summary

In summary, 89 to 90 percent of teachers at all levels observed good progress in student self-esteem. Grade-level achievement was good according to 90 percent of elementary teachers. Half or more elementary teachers reported "good" progress in pupil bilingual skills, bilingual/regular program coordination, and parent involvement. Most secondary teachers saw "a little" progress in these areas. Teachers had many suggestions for improving program communication and evaluation. Factors responsible for differences in reading skills were identified. Many, such as intelligence, probably defy change by intervention. Others, such as experience, readiness skills, and motivation, probably could be improved by joint school/home planning.

Ancillary Evaluation Activities

ANCILLARY EVALUATION ACTIVITIES

System-Wide Language Survey

In February 1976, a survey was made of the language dominance of all pupils in the Milwaukee Public Schools. The purpose was to assure compliance, according to United States Office of Civil Rights Guidelines, with the 1974 United States Supreme Court decision guaranteeing instruction in the native language of non-English speaking children. Classroom or homeroom teachers assigned children whose primary or home language was other than English to one of three language categories to help determine eligibility for bilingual instruction. Four thousand three hundred and eight students were identified as having 56 primary or home languages other than English. For 3,071, the language was Spanish. German was next with 328, followed by Greek, Italian, and Serbian. Additional screening was planned for students who spoke English at school but whose home language was uncertain. The survey verified the need for assigning priority to a Spanish bilingual program.

A Compendium of Measures for Bilingual Assessment

The Compendium was compiled to meet the expressed needs of educators working with Spanish-dominant and bilingual students. The publication described instruments published either in English with Spanish instructions or in Spanish. Instruments were categorized into measures of Achievement, Attitude Toward Self and Others, Language, Mental Ability, Readiness, and Vocational Interest. A file was prepared of specimen sets of all instruments listed in the Compendium.

Wisconsin Educational Research Association

A seminar on the evaluation of bilingual programs was presented by Milwaukee Public Schools research and curriculum staff members at the annual meeting of the Wisconsin Educationl Research Association in Madison in December 1975.

Summary

SUMMARY

Kindergarten

1. A little over 50 percent of the 106 kindergarten pupils were monolingual English or Spanish. Sixty-two percent were Spanish dominant, 25 percent were from bilingual homes and the remainder were partially bilingual.

2. Over 80 percent of the pupils of the three participating schools achieved 13 out of the 18 skills on the Reading Readiness Skills Inventory in March.

3. On the Metropolitan Readiness Tests, performance of bilingual pupils and Spanish-surnamed comparison pupils did not differ for the total program of Vieau School.

   -- The total bilingual program rating was "average" for the six schools in all skills on the Performance Rating based on national norms for the end of kindergarten.

   -- Bilingual Program total mean score (62.37) on the Pre-Reading Skills Composite was significantly higher than that of 779 pupils in the Title I All-Day Kindergarten Program (57.07).

   -- Length of kindergarten day (half day or all day) was not a factor in Bilingual Program performance. This confirmed past findings. Both half-day and all-day programs were represented in high scoring and low scoring schools.

4. As a group, they tested just inside the lowest quarter of the national population on a pretest of general concepts and in the average range

of the national population on an end-of-year test of school readiness skills.

Lower Primary

1. Of the 138 pupils tested, the 25 percent who were Spanish dominant or bilingual with Spanish as a home language were taught to read first in Spanish. The remaining 75 percent learned to read initially in English.

2. Pupils generally spent all year acquiring reading skills in their dominant language.

3. Seven Spanish-dominant and three English-dominant pupils reached Level 8 in reading, the criterion for switching, and were reading in both languages at the end of the year.

4. In June, median reading levels, based on book level, were 5.0 for English-dominant and 5.5 for Spanish-dominant pupils. The median is the middle rank.

5. On a monitoring test of the Title I Mathematics Program, Bilingual Program pupil achievement was greater on eight of the nine math objectives than that of Title I Mathematics Program pupils.

6. The 22 Spanish-dominant pupils were ahead of the 38 English-dominant pupils in almost all second language skills.

7. The 82 Bilingual Program pupils scored in the national fourth stanine (average range) on Listening for Sounds, which measures "pupils'

knowledge of beginning and ending sounds and sound letter relationships". Their performance was significantly higher than 98 Title I Reading Program pupils who scored in the third stanine (low range).

8. Both Bilingual Program pupils and Title I Reading and Mathematics Program pupils scored in the national average range in Reading and Numbers. Bilingual pupils who took the Spanish version of the numbers test also scored within the national average.

9. Compared with Spanish-surnamed non-program pupils at Kagel and Vieau Schools, Bilingual Program pupils:

   -- when they were in kindergarten in 1975, scored the same in Metropolitan Readiness Tests, Language and Numbers and higher in Word Meaning.

   -- the same pupils in lower primary in 1976, scored significantly higher on Metropolitan Achievement Tests, Listening for Sounds, Reading, and Numbers.

10. Pupils made good progress in learning to read in their dominant language and to acquire speaking and comprehension skills in their second language. They performed with the national average range on standardized tests of reading and mathematics and scored higher than a Spanish-surnamed non-program group.

11. By the above criteria, the goal of grade-level achievement was attained in the overall lower primary program.

Middle Primary

1. Most middle primary pupils were only one or two reading levels ahead of lower primary pupils in first language reading by the end of the

year. About 40 percent had also begun reading in their second language.

2. On a standardized test of English reading, they scored in the low range on national norms but higher than Title I Reading Center pupils.

3. English-dominant pupils did well in mathematics, in the average range on national norms and higher than Title I Mathematics Program pupils.

4. Spanish-dominant pupils, particularly those in their second year in the program, scored low in math. In prior years, the switch to second language reading in upper primary was accompanied by lowered math performance. This time the effect may have operated at middle primary where the data on pupil reading levels indicated that the switch to reading in the second language was made prior to the attainment of the recommended first language reading level.

Upper Primary

1. On the "Metropolitan Achievement Tests, Elementary", the findings were:

   -- in reading tests, Bilingual Program pupils scored higher (Stanine 4, average range, on national norms) than pupils in the Title I Reading Centers (Stanines 2 and 3, low, on national norms).

   -- in math tests, Bilingual Program pupils scored higher (Stanine 4 on national norms) than pupils in the Title I Elementary Mathematics Program (Stanine 3 on national norms).

   -- pupils tested with Spanish instructions on math computation scored lower (Stanine 3) than those tested in English (Stanine 4).

-- pupils who did not attend the Bilingual Reading Center scored higher than those who did.

2. Testing for reading ability, done at the end of the year with "Pruebas de Lectura" according to the pupil's Spanish reading level, revealed that:

   -- of the 40 pupils who took Level 1 (Grade 1 and 2), the Spanish-dominant pupils averaged 65.3, the bilingual pupils averaged 57.4, and English dominant averaged 45.1.

   -- of the 53 pupils who took Level 2 (Grades 2 and 3), the average of 63.8 out of a possible 110 ranked in the 95th percentile on tentative norms developed in New York City for third-grade Spanish-speaking pupils in English language schools. It is between the 60th and 65th percentile of urban scores for third grade on an island-wide administration in Puerto Rico in 1967.

3. These comparisons are evidence that the program met its goals for Spanish reading.

4. By the end of primary, pupils scored in the average range on standardized tests of English reading and mathematics. The previous trend toward a lag in grade-level performance at upper primary did not occur. Instead, a lag was in evidence at middle primary when many pupils were introduced to second language reading.

5. The fact that only half the schools participated in the social studies and in the science tests in group monitor sessions suggests that these areas need to be included on a regularly scheduled basis to insure grade-level achievement.

6. The "Primary Self-Concept Inventory" administered to one third-grade bilingual class and one regular class at two northside and two southside schools failed to demonstrate a positive relationship between

the Bilingual Program and self-concept since all groups had satisfactory self-concepts.

7. A sample of upper primary pupils demonstrated a high level of cultural knowledge and positive attitudes toward Mexican and Puerto Rican cultures.

8. Bilingual Program fifth and sixth graders were not embarrassed to speak Spanish like Hispanics in regular classes (observation of primary teachers).

Secondary Schools

Career Orientation Program

1. Students demonstrated significant pre/post gains on the Career Preparation Survey, a test of general information about job and college entrance.

English for Latinos

1. The program had the positive effects of preparing senior high students for participation in the regular high school English classes, enhancing group identity, and providing a basis for school success in many cases where the students' inadequate knowledge of English structure had resulted in failure.

Spanish for Spanish Speakers

1. The program was effective in improving Spanish reading, writing, and speaking skills.

2. Students increased their appreciation of standard Spanish and for vocabulary differences representing Latin backgrounds other than their own.

Bilingual Typing

1. Many students successfully combined the learning of a second language with a motor skill that could be an asset for employment.

Student Survey

1. Out of 204 students surveyed, 73 percent responded in Spanish. This reflected cultural pride and positive self-concept, a marked contrast to the first years of the program when the majority selection was English.

2. Fifty-four percent said they would learn more if homework were assigned.

Graduates

1. Counselors reported that the Bilingual Program produced more Hispanic graduates, more college-bound students, and more job-oriented students than ever before.

2. Eighty percent of South's graduates planned to continue their education. Two of the ten students who graduated with honors were in the Bilingual Program. Nine of the 34 students elected to the National Honor Society were Latins and six of these were in the Bilingual Program.

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REFERENCES

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APPENDIX

TABLE I

TITLE I PROGRAM INVOLVEMENT OF TITLE VII PUPILS
BY GRADE LEVEL AND SCHOOL

SCHOOLS BY GRADE LEVEL	TITLE I PROJECTS - NUMBER OF PUPILS INVOLVED										
	ELEMENTARY MATH	LOWER PRIMARY READINESS	READING CENTER, HILL *	READING CENTER, REGULAR	BILINGUAL READING CENTER	BILINGUAL AIDES	TEAM **	GUIDANCE	PSYCHOLOGICAL	SOCIAL WORK	CLOTHING
KINDERGARTEN											
Allen-Field	15		1	1						1	
Kagel	7							6	5		
Pierce											
Vieau					1	14		4	7	1	1
TOTAL KINDERGARTEN	22		1	1	1	14		10	12	2	1
LOWER PRIMARY											
Allen-Field	2		1							1	1
Holmes	2	1						3		1	1
Kagel	6						3	2	1	1	1
Pierce	5		1	7					1	1	1
Twenty-seventh St.	1										
Vieau					1	3			2		
TOTAL LOWER PRIMARY	16	1	2	7	1	3	3	5	4	4	4
MIDDLE PRIMARY											
Allen-Field	9		4	14				1	2	3	3
Holmes	2			5				5			1
Kagel	8			10						1	1
Pierce	1		1	11						1	
Twenty-seventh St.	4		2						2	1	
Vieau					18	26		2	2	1	3
TOTAL MIDDLE PRIMARY	24		7	40	18	26		8	6	7	8
UPPER PRIMARY											
Allen-Field			8	9						7	6
Holmes				4				4			
Kagel	6			15						4	1
Pierce	1			10							
Twenty-seventh St.	3							1			1
Vieau				1	26	33		3	3		
TOTAL UPPER PRIMARY	10		8	39	26	33		8	3	11	8
TOTAL PROGRAM	72	1	18	87	46	76	3	31	25	24	21

* HILL = High Intensity Learning Lab
** TEAM = Coordinated Supportive Services Team

TABLE II

LANGUAGE DOMINANCE OF BILINGUAL PROGRAM KINDERGARTEN PUPILS
JAMES LANGUAGE DOMINANCE TEST, FALL 1975

School	N	Language Categories									
		Spanish Dominant		Bilingual with Spanish as a Home Language		Bilingual with Spanish and English as a Home Language		English Dominant/ Bilingual Comprehension		English Dominant	
		N	%	N	%	N	%	N	%	N	%
Allen-Field	41	8	20	3	7	7	17	6	15	17	41
Kagel	21	8	38	1	5	6	29	3	14	3	14
Pierce	22	9	41	1	4	5	23	3	14	4	18
Vieau	22	8	36	3	14	7	32	4	18	0	0
Total	106	33	31	8	7	25	24	16	15	24	23

TABLE III

KINDERGARTEN READING READINESS SKILLS MONITOR 1975-76

Monitor Schedule

November-December: Abilities 1 through 5
January: Abilities 10 through 16
March: Abilities 6, 7, 8, 9, 17, 18

	NUMBER OF SCHOOLS REPORTING	NUMBER OF STUDENTS	PERCENT ACHIEVEMENT
1. Pays attention. Ignores minor distractions	3	88	82
2. Listens and understands what is said.	3	88	90
3. Follows oral directions.	3	88	92
4. Speaks clearly so that he is understood.	3	88	91
5. Speaks in complete sentences.	3	88	84
6. Recognizes likeness and differences in:			
Forms and shapes	3	83	87
Letters	3	83	64
Words	3	83	53
Word patterns	3	83	39
7. Hears differences and similarities in initial and consonant sounds.	3	83	35
8. Recognizes words that rhyme.	3	83	40
9. Is able to arrange pictures in sequence that make sense.	3	83	77
10. Knows left side of his body from his right.	1	42	100
11. Is able to make his eyes and hands move together in a left-to-right direction.	2	64	64
12. Recognizes common word meanings in spoken context.	2	64	95
13. Demonstrates that his experiences are commensurate with his age and development	2	64	95
14. Cooperates well as part of a group.	2	64	94
15. Works alone well for short period of time.	2	64	94
16. Demonstrates interest in print, in words, and in books.	2	64	89
17. Recognizes visual details which enable him to match words or to select a word which does not belong to a group.	3	81	31
18. Understands that print stands for or represents speech.	3	82	90

TABLE IV

BILINGUAL AND COMPARISON KINDERGARTEN PERFORMANCE
ON THE METROPOLITAN READINESS TESTS 1976

Group	N	Visual			Language			Pre-Reading Skills Composite		
		Maximum Score = 25			Maximum Score = 26			Maximum Score = 76		
		$\bar{x}$	SD	t	$\bar{x}$	SD	t	$\bar{x}$	SD	t
Bilingual Program	E= 51	21.55	3.98		21.14	4.30		62.37	11.33	
	S= 53	21.34	6.65	0.85	19.66	4.58	1.69			
Spanish-Surnamed Comparison, 4 schools	E= 37	19.70	4.78	0.59	19.84	4.17	1.42	58.05	11.3	1.76
Title I All-Day Kindergarten	779							57.07	11.08	3.24*
Allen-Field (half-day)	E= 29	22.45	3.60		23.21	2.81		67.96	8.69	
	S= 12	23.33	12.3	0.25	23.00	2.45	0.24			
Kagel (half-day)	E= 10	18.80	5.03		18.40	4.88		54.20	12.02	
	S= 13	18.39	3.84		17.31	2.72	0.64			
Pierce (all-day)	E= 10	21.20	3.16		17.60	4.20		54.10	7.89	
	S= 13	20.39	3.84	0.56	15.92	5.14	0.86			
Vieau (all-day)	E= 2	24.00	0.00		22.50	2.12		63.50	13.44	
	S= 15	23.13	2.17		22.27	3.06	0.14			
Spanish-Surnamed Comparison, Vieau (all-day)	14	17.86	5.26		18.21	4.17	2.29	52.29	9.96	1.37

* Difference is significant at the .01 level

E = Tested in English
S = Tested in Spanish

N = Number of Pupils
$\bar{x}$ = Mean Raw Score
SD = Standard Deviation

TABLE V

SIGNIFICANCE OF DIFFERENCES BETWEEN SCHOOLS
METROPOLITAN READINESS PRE-READING SKILLS COMPOSITE

School and Program			t	df
Allen-Field (half-day)	vs	Kagel (half-day)	3.33*	37
Allen-Field (half-day)	vs	Pierce (all-day)	4.66*	37
Allen-Field (half-day)	vs	Vieau (all-day)	0.46	29
Kagel (half-day)	vs	Pierce (all-day)	0.22	18
Kagel (half-day)	vs	Vieau (all-day)	0.91	10
Pierce (all-day)	vs	Vieau (all-day)	0.96	10

* Difference is significant beyond the .01 level of confidence

TABLE VI

LANGUAGE DOMINANCE OF BILINGUAL PROGRAM LOWER PRIMARY PUPILS
JAMES LANGUAGE DOMINANCE TEST, FALL 1975

School	N	Language Categories									
		Spanish Dominant		Bilingual with Spanish as a Home Language		Bilingual with Spanish and English as a Home Language		English Dominant/ Bilingual Comprehension		English Dominant	
		N	%	N	%	N	%	N	%	N	%
Allen-Field	27	1	4	10	37	6	22	6	22	4	15
Holmes	12	2	17	1	8	5	42	3	25	1	8
Kagel	23	2	9	1	4	8	35	5	22	7	30
Pierce	22	4	18	1	5	8	36	1	5	8	36
Twenty-seventh	25	3	12	0	0	3	12	1	4	18	72
Vieau	29	7	24	2	7	10	34	6	21	4	14
Total	138	19	14	15	11	40	29	22	16	42	30

TABLE VII. MONITOR OF FIRST AND SECOND LANGUAGE READING LEVELS
LOWER PRIMARY, 1975-1976
PERCENT IN EACH LEVEL

READING LEVELS	ENGLISH DOMINANT								SPANISH DOMINANT								READING LEVELS
	English				Spanish				English				Spanish				
	Nov N=33	Jan N=34	Mar N=29	Jun N=76	Nov N= 0	Jan N= 0	Mar N= 0	Jun N= 3	Nov N= 0	Jan N= 2	Mar N= 2	Jun N= 7	Nov N=23	Jan N=25	Mar N=28	Jun N=63	
Pre																1	Pre
1	3	3	3	1									9	8	7	3	1
2	36	6											39	16			2
3	52	29	7	11				4		8	7	5	52		11	11	3
4	9	47	35	18								6		32	18	19	4
5		6	48	44										16	36	16	5
6		9		18										28	14	32	6
7			7	8											14	10	7
8																8	8
9																	9
10																	10
11																	11
12																	12
Grade 4																	Grade 4
PERCENT OF TOTAL	100	100	100	100				4		8	7	11	100	100	100	100	PERCENT OF TOTAL
MEDIAN READING LEVEL	2.7	3.8	4.6	5.0				3		2	2	3.6	2.5	4.3	4.9	5.5	MEDIAN READING LEVEL

TABLE VIII

PUPIL PROGRESS IN SECOND LANGUAGE ARTS, COMPREHENSION

Vocabulary in Context	Kindergarten N Schools = 1 N Pupils = 20 % Achievement		Lower Primary N Schools = 3 N Pupils = 60 % Achievement		Middle Primary N Schools = 5 N Pupils = 105 % Achievement		Upper Primary N Schools = 4 N Pupils = 82 % Achievement	
	ESL=10	SSL=10	ESL=22	SSL=38	ESL=44	SSL=61	ESL=23	SSL=59
Greetings	40	50	100	100	91	95	100	97
Leave-taking	50	50	100	97	98	90	100	80
Courtesy	30	70	100	87	93	74	100	97
Health	50	30	100	84	91	74	78	66
Age	70	40	100	89	98	72	78	66
Weather	70	60	100	84	93	75	78	66
Classroom Directions and Expressions	50	40	100	87	91	77	100	73
Classroom Objects and Locations	60	60	95	84	91	72	95	73
Parts of the Body	70	30	95	89	93	67	100	66
Body Actions	60	10	95	84	84	59	95	66
Identifying Actions	60	10	95	79	80	59	78	61
Colors	50	10	95	92	98	90	100	97
Numbers	40		86	76	95	92	95	97
Calendar	40	10	45	61	66	82	82	95
Time								
Clock	80	40		2	41	36	69	54
Days	60	60	36	8	75	46	86	95
Months	80	90			68	52	91	93
Seasons	40	70	36	2	77	41	69	56

N Schools = Number of Schools Reporting
N Pupils = Number of Pupils Reporting

% Achievement = Percent of Pupils Demonstrating Skill
ESL = Number English as a Second Language Pupils
SSL = Number Spanish as a Second Language Pupils

TABLE IX

PUPIL PROGRESS IN SECOND LANGUAGE ARTS, SPEAKING

Vocabulary in Context	Kindergarten N Schools = 1 N Pupils = 20 % Achievement		Lower Primary N Schools = 3 N Pupils = 60 % Achievement		Middle Primary N Schools = 5 N Pupils = 105 % Achievement		Upper Primary N Schools = 4 N Pupils = 82 % Achievement	
	ESL=10	SSL=10	ESL=22	SSL=38	ESL=44	SSL=61	ESL=23	SSL=59
Greetings	70	50	100	84	80	85	95	95
Leave-taking	50	60	100	82	84	77	95	76
Courtesy	70	20	100	71	82	64	100	91
Health	40	70	100	66	84	64	78	61
Age	10	60	100	76	91	66	78	64
Weather	40	50	95	61	89	61	78	62
Classroom Directions and Expressions	60	60	95	66	77	59	91	69
Classroom Objects and Locations	40	40	95	61	77	54	100	69
Parts of the Body	40	70	95	71	84	57	78	64
Body Actions	50	80	95	63	61	43	69	62
Identifying Actions	50	80	95	50	64	48	73	57
Colors	30	80	95	76	91	84	100	95
Numbers	60		91	66	75	82	91	95
Calendar	20	80	36	34	43	57	82	96
Time								
Clock		30	5	5	25	11	56	52
Days	40	20	73	10	59	33	78	96
Months			5		36	11	82	95
Seasons	10		59	2	43	26	65	54

N Schools = Number of Schools Reporting
N Pupils = Number of Pupils Reporting
% Achievement = Percent of Pupils Demonstrating Skill

ESL = Number English as a Second Language Pupils
SSL = Number Spanish as a Second Language Pupils

TABLE X

LOWER PRIMARY PERFORMANCE ON THE METROPOLITAN ACHIEVEMENT TESTS
PRIMER F, MAY, 1976

Group	Listening for Sounds Max. Possible Score =39			Reading Max. Possible Score =33			Numbers Max. Possible Score = 34 English			Numbers Max. Possible Score = 34 Spanish		
	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD
Bilingual Program Total	82	33.62*	6.55	82	26.96	6.20	76	29.99	2.75	41	25.17	8.30
Allen-Field	13	36.31	1.75	13	30.00	1.63	15	30.73	1.87	8	13.88	0.35
Holmes	8	31.13	9.29	8	22.63	9.55	8	28.88	3.39	4	21.50	12.23
Kagel	10	32.50	4.88	10	25.10	6.28	10	30.10	3.04	0		
Pierce	13	31.62	7.89	13	27.08	6.24	13	29.31	2.18	11	28.46	7.03
27th Street	25	32.64	7.77	25	26.12	6.67	14	31.50	2.18	11	26.64	4.41
Vieau	13	37.23	1.42	13	29.54	3.48	16	29.00	3.33	7	32.71	0.76
Title I Reading Program	98	30.39	7.06	98	26.19	5.74						
Title I Math Program							478	25.37				

* Difference between Bilingual Program Total and Title I Reading Program is significant at the .01 level of confidence. (t=3.18)

TABLE XI

COMPARISONS OF ACHIEVEMENT OF BILINGUAL PROGRAM AND SPANISH - SURNAMED NON-PROGRAM PUPILS* AT TWO LEVELS, KINDERGARTEN AND LOWER PRIMARY

KINDERGARTEN, METROPOLITAN READINESS TESTS, 1975

Group	N	Language $\bar{x}$	SD	t	Word Meaning $\bar{x}$	SD	t	Numbers $\bar{x}$	SD	t
Bilingual	76	10.26	2.95		8.85	2.67		12.68	4.41	
Comparison	14	8.57	3.01	1.94	6.64	2.50	3.01**	10.86	3.86	1.59

LOWER PRIMARY, METROPOLITAN ACHIEVEMENT TESTS, 1976

Group	N	Listening for Sounds $\bar{x}$	SD	t	Reading $\bar{x}$	SD	t	N	Numbers $\bar{x}$	SD	t
Bilingual	71	34.75	5.56		27.90	5.61		76	29.99	2.75	
Comparison	17	30.59	7.99	3.02**	24.59	4.51	2.59***	17	25.47	4.23	4.21***

* Spanish-surnamed pupils in regular Lower Primary at Kagel and Vieau Schools

** Difference is significant at .01 level of confidence

*** Difference is significant at .02 level of confidence

TABLE XII

LOWER PRIMARY PERFORMANCE ON THE METROPOLITAN ACHIEVEMENT TESTS
BY LENGTH OF TIME IN BILINGUAL PROGRAM

Time in Program	Listening for Sounds				Reading				Numbers			
	N	$\bar{x}$	SD	t	N	$\bar{x}$	SD	t	N	$\bar{x}$	SD	t
One Year	55	32.89	6.93		55	25.91	6.54		76	28.62	5.40	
Two Years	27	35.11	5.5	1.57	27	29.11	4.89	2.48*	40	27.65	6.65	0.79

* Difference is significant at the .01 level of confidence

TABLE XIII

LOWER PRIMARY PERFORMANCE ON THE METROPOLITAN ACHIEVEMENT TESTS
BY PARTICIPATION IN TITLE I MATH PROGRAM

Bilingual Program Group	N	$\bar{x}$	SD	t
Title I Math	15	27.47	4.53	
Non-Title I Math	102	28.42	6.01	0.73

TABLE XIV. MONITOR OF FIRST AND SECOND LANGUAGE READING LEVELS
MIDDLE PRIMARY, 1975-1976
PERCENT IN EACH LEVEL

READING LEVELS	ENGLISH DOMINANT								SPANISH DOMINANT								READING LEVELS
	English				Spanish				English				Spanish				
	Nov N=69	Jan N=78	Mar N=79	Jun N=92	Nov N=13	Jan N=35	Mar N=35	Jun N=51	Nov N= 3	Jan N= 4	Mar N= 7	Jun N=14	Nov N=54	Jan N=53	Mar N=64	Jun N=65	
Pre					4		3	2					13	4	5	3	Pre
1					1					2			2	2	3	3	1
2	6				7		5						4	11	3	2	2
3	13	17	16	3		17	13	2	4		3	8		9	8	6	3
4	35	9	9	19	1	9	3	3			2	5	41	9	9	6	4
5	20	28	8	4			3	8			5	2	7	11	2		5
6	7	21	25	16	4	12	11	12	2	6	2	3	15	33	22	18	6
7		6	15	19		1	8	12					18	11	20	18	7
8	19	15	10	14		6		16				5		8	6	11	8
9		4	14	11										2		16	9
10			3	9												17	10
11				4											2		11
12																	12
Grade 4				1													Grade 4
PERCENT OF TOTAL	100	100	100	100	17	45	46	55	6	8	12	23	100	100	100	100	PERCENT OF TOTAL
MEDIAN READING LEVEL	4.4	5.4	6.2	6.9	2.0	4.1	4.3	6.5	3.3	5.8	4.7	4.2	4.3	5.6	6.4	7.1	MEDIAN READING LEVEL

TABLE XV

PUPIL PROGRESS IN SECOND LANGUAGE ARTS, READING AND WRITING

Vocabulary in Context	READING Middle Primary N Schools = 1 ESL, 2 SSL N Pupils = 40 % Achievement		READING Upper Primary N Schools = 2 N Pupils = 44 % Achievement		WRITING Middle Primary N Schools = 1 ESL, 2 SSL N Pupils = 40 % Achievement		WRITING Upper Primary N Schools = 2 ESL, 1 SSL N Pupils = 28 % Achievement	
	ESL=13	SSL=27	ESL=18	SSL=26	ESL=13	SSL=27	ESL=14	SSL=14
Greetings	69	30	83	100	69	83	100	78
Leave-taking	38	11	66	96	23		50	50
Courtesy	46	11	66	88	23		42	35
Health	46	11	66	88	23		50	35
Age	62	15	77	100	46		85	85
Weather	54	19	61	84	15	16	64	35
Classroom Directions and Expressions	38	11	33	73	8	15	28	14
Classroom Objects and Locations	31	11	50	76	8		35	14
Parts of the Body	54	11	77	96	15		71	85
Body Actions	15	11	61	92			50	78
Identifying Actions	8	11	50	80			35	21
Colors	69	22	77	100	77	50	85	78
Numbers	69	22	77	80	69	50	85	78
Calendar		15	61	84			57	50
Time								
Clock		4	44	61			21	21
Days		7	77	92	31		71	78
Months		4	66	84	23	16	50	50
Seasons			83	65	15		28	28

N Schools = Number of Schools Reporting
N Pupils = Number of Pupils Reporting
% Achievement = Percent of Pupils Demonstrating Skill

ESL = Number English as a Second Language Pupils
SSL = Number Spanish as a Second Language Pupils

TABLE XVI

MIDDLE PRIMARY PERFORMANCE ON THE
METROPOLITAN ACHIEVEMENT TESTS, PRIMARY 1, F, MAY 1976

Group	Word Knowledge Maximum possible score=35			Word Analysis Maximum possible score=40			Reading Maximum possible score=42			Total Reading Maximum possible score=77			Mathematics Maximum possible score=62					
													English			Spanish		
	N	x̄	SD	N	x̄	SD	N	x̄	SD	N	x̄	SD	N	x̄	SD	N	x̄	SD
Bilingual Program Total	101	29.53	5.38	101	32.63	7.39	99	29.76	10.28	99	59.62	15.00	101	51.01	8.16	31	34.00	13.63
Allen-Field	17	28.18	6.89	17	33.47	5.94	17	27.47	9.55	17	55.65	15.76	17	49.77	7.78	7	27.29	14.38
Holmes	9	26.00	6.86	9	28.67	9.12	9	22.44	10.22	9	48.44	16.49	9	47.22	8.69	2	11.00	9.90
Kagel	21	30.91	3.78	21	35.29	4.65	21	33.38	6.28	21	64.29	9.32	21	53.05	5.69	6	46.67	15.35
Pierce	16	27.81	7.31	16	29.81	11.39	16	29.56	10.63	16	57.38	17.59	16	45.00	9.88	9	33.89	6.31
27th Street	14	31.00	3.14	14	33.43	6.51	14	25.00	15.12	14	56.00	17.80	14	53.50	9.48	1	41.00	0.00
Vieau	24	30.86	5.92	24	32.63	6.11	22	34.23	6.93	22	66.73	10.15	24	54.08	6.46	6	35.83	8.16
Title I Reading Center and Elementary Mathematics Projects	863	26.00					863	21.00		863	47.00		767	46.00				

TABLE XVII

MIDDLE PRIMARY ACHIEVEMENT BY LENGTH OF TIME IN PROGRAM
METROPOLITAN ACHIEVEMENT TESTS, PRIMARY 1, F, MAY 1976

Time in Program	Total Reading			Mathematics					
				English			Spanish		
	N	$\bar{x}$	SD	N	$\bar{x}$	SD	N	$\bar{x}$	SD
1 year	48	60.0	13.9	49	50.7	7.7	16	39.6	11.9
2 years	20	54.7	16.2	20	52.8	8.9	6	17.3	7.8
3 years	22	60.7	17.3	22	49.3	9.2	5	43.0	5.2
4 years	5	66.0	12.4	5	53.6	7.3			
	F-Ratio = 1.04			F-Ratio = 0.81			F-Ratio = 11.88*		
							t-tests of differences		
							1 yr vs. 2 yrs=5.09*		
							1 yr vs. 3 yrs=0.89		
							2 yrs vs. 3 yrs=6.47*		

* Difference is significant at the .01 level of confidence

TABLE XVIII. MONITOR OF FIRST AND SECOND LANGUAGE [illegible]
UPPER PRIMARY, 1975-1976
PERCENT IN EACH LEVEL

READING LEVELS	ENGLISH DOMINANT								SPANISH DOMINANT								READING LEVELS
	English				Spanish				English				Spanish				
	Nov N=84	Jan N=56	Mar N=48	Jun N=74	Nov N=27	Jan N=13	Mar N=12	Jun N=31	Nov N=21	Jan N=12	Mar N= 7	Jun N=24	Nov N=38	Jan N=18	Mar N= 8	Jun N=32	
Pre																	Pre
1									11							3	1
2					2												2
3	4	2		4	5				21	2		3	13				3
4	7	11	2	2	2	4			3	22	2	19	18				4
5	17	2	2	4	10	2			5			25	13	11			5
6	19	9	15	3	2	4	4	9	13	2		3	16	39	12		6
7	15	21	4	9	2	2	2	7	3	2	2	3	21		13	19	7
8	9	28	27	20	8	13	4	15		22	63	3	16	17		53	8
9	29	25	25	24			4	1		2		16	3	33	50	3	9
10		2	25	20			10	4				3			25	19	10
11				2				4								6	11
12				12				1									12
Grade 4																	Grade 4
PERCENT OF TOTAL	100	100	100	100	31	25	24	41	56	52	67	75	100	100	100	100	PERCENT OF TOTAL
MEDIAN READING LEVEL	6.7	7.7	8.5	8.8	5.2	8.6	9.0	7.8	3.3	6.5	6.8	5.1	5.8	7.0	9.0	8.1	MEDIAN READING LEVEL

TABLE XIX

UPPER PRIMARY PERFORMANCE ON THE
METROPOLITAN ACHIEVEMENT READING TESTS, ELEMENTARY, MAY 1976

Group	Word Knowledge Maximum possible score=50			Reading Maximum possible score=45			Total Reading Maximum possible score=95		
	N	$\bar{x}$	SD	N	$\bar{x}$	SD	N	$\bar{x}$	SD
Bilingual Program Total	96	22.9	12.5	92	16.8	7.7	89	39.1	18.1
Allen-Field	19	33.5	10.3	19	17.9	6.9	19	51.4	16.2
Holmes	8	13.3	7.6	7	14.1	3.7	7	29.1	7.7
Kagel	19	28.6	12.6	16	21.4	10.6	14	46.2	20.7
Pierce	18	19.7	10.8	18	16.6	8.1	18	36.3	17.4
27th Street	5	29.2	15.5	5	19.0	8.9	5	48.2	23.0
Vieau	27	15.37	7.5	27	13.6	5.2	26	29.2	11.6
Title I Reading Center	1,031	14.00		1,031	11.5		1,031	24.0	

TABLE XX

UPPER PRIMARY PERFORMANCE ON THE
METROPOLITAN ACHIEVEMENT MATHEMATICS TESTS
ELEMENTARY, MAY 1976

Group	Math Computation Maximum possible score=40			Math Concepts Maximum possible score=40			Problem Solving Maximum possible score=35			Total Math Maximum possible score=115		
	N	$\bar{x}$	SD	N	$\bar{x}$	SD	N	$\bar{x}$	SD	N	$\bar{x}$	SD
Bilingual Program Total	95E 10S	19.0 16.7	8.0 8.5	87E	17.7	8.2	91E	13.7	6.1	85E	51.1	19.9
Allen-Field	22	21.1	8.0	18	20.3	7.9	20	17.0	5.8	18	61.6	18.7
Holmes	7	12.0	4.2	8	14.0	7.0	8	9.6	3.2	7	38.0	11.2
Kagel	16	23.8	7.8	12	25.1	6.7	14	17.2	5.6	11	70.9	13.6
Pierce	18	14.8	5.1	18	13.3	5.3	18	11.0	4.7	18	39.1	13.4
27th Street	6	26.2	9.9	5	23.2	7.4	5	16.4	10.7	5	64.8	26.1
Vieau	26	17.5	6.8	26	15.5	8.2	26	11.8	4.9	26	44.8	16.4
Title I Mathematics Project	739	15.00		739	14.50		739	11.00		739	39.00	

TABLE XXI

COMPARATIVE PERFORMANCE OF UPPER PRIMARY BILINGUAL PROGRAM PUPILS ON THE METROPOLITAN ACHIEVEMENT TESTS, ELEMENTARY, BY INVOLVEMENT OR NON-INVOLVEMENT IN SPECIAL READING AND MATH PROGRAMS, MAY 1976

Bilingual Program Groups	Total Reading				Total Math			
	N	$\bar{x}$	SD	t	N	$\bar{x}$	SD	t
Title I Math					5	63.2	16.5	
Non-Title I Math					83	50.6	19.8	1.64
Title I Reading	26	37.65	17.9					
Non-Title I Reading	63	39.71	18.2	0.49				
Bilingual Reading Center	21	25.48	8.1					
Non-Bilingual Reading Center	68	43.32	18.2	6.31*				

* Difference is significant at the .01 level of confidence

TABLE XXII

PERFORMANCE OF UPPER PRIMARY BILINGUAL PROGRAM PUPILS
BY LANGUAGE DOMINANCE ON PRUEBAS DE LECTURA, LEVEL 1CEs, JUNE 1976

Group	*Language Dominance	N	Vocabulary Maximum Possible Score=40 $\bar{x}$	SD	Comprehension Maximum Possible Score=40 $\bar{x}$	SD	Total Maximum Possible Score=80 $\bar{x}$	SD
Total Bilingual Program	E	14	24.4	6.8	20.6	7.4	45.1	13.7
	S	3	34.7	8.4	30.7	12.7	65.3	21.1
	B	23	31.1	7.7	26.3	9.3	57.4	15.9
Allen-Field	E	6	33.5	3.8	25.2	6.6	59.0	9.5
Holmes	E	4	26.0	1.4	22.0	3.5	48.0	2.5
Kagel	E	6	29.7	3.4	27.0	4.7	56.7	6.7
	S	2	39.5	0.7	38.0	0.0	77.5	0.7
	B	8	36.8	3.1	36.3	2.5	73.0	3.6
Pierce	E	6	17.67	3.6	14.2	4.1	31.8	7.2
Vieau	E	2	29.0	1.4	21.0	4.2	50.0	5.7
	S	5	23.2	10.4	15.0	4.8	38.2	14.6

* E = English Dominant
S = Spanish Dominant
B = Bilingual

TABLE XXIII

PERFORMANCE OF UPPER PRIMARY BILINGUAL PROGRAM PUPILS
ON PRUEBAS DE LECTURA, LEVEL 2DEs, JUNE 1976

Group	N	Level Maximum Possible Score=40 $\bar{x}$	Level SD	Speed Maximum Possible Score=30 $\bar{x}$	Speed SD	Vocabulary Maximum Possible Score=40 $\bar{x}$	Vocabulary SD	Total Maximum Possible Score=110 $\bar{x}$	Total SD
Total Bilingual Program	53	23.8	8.5	14.5	8.2	25.6	7.7	63.8	21.8
Allen-Field	10	29.0	5.7	13.7	4.9	29.3	4.6	71.7	11.9
Kagel	5	32.2	6.5	24.6	7.8	28.2	8.1	85.0	17.5
Pierce	14	16.86	5.2	10.9	4.9	19.6	7.2	47.4	15.9
27th Street	6	35.7	3.8	29.0	1.1	33.7	2.7	98.3	7.2
Vieau	18	20.0	5.4	10.1	4.9	24.7	7.1	54.8	14.3

TABLE XXIV

PERFORMANCE ON THE INPUT/PARAPHRASE TEST

Group	N	Input Maximum Possible Score=23 $\bar{x}$	Input Maximum Possible Score=23 SD	Paraphrase Maximum Possible Score=24 $\bar{x}$	Paraphrase Maximum Possible Score=24 SD	Total Maximum Possible Score=47 $\bar{x}$	Total Maximum Possible Score=47 SD
Field Test Grades 4 and 5	37	13.9	5.5	14.1	4.2	28.0	
Bilingual Program Grade 3	45	9.8	4.3			19.9	7.6
Allen-Field	17	10.2	6.5	11.4	4.8	21.6	9.1
Holmes	5	8.0	1.4	8.6	2.6	16.6	3.3
Kagel	3	10.0	3.5	13.3	0.6	23.3	4.0
Viesu	20	9.9	3.9	10.4	2.9	18.9	7.1

TABLE XXV

A COMPARISON OF THIRD GRADE BILINGUAL PROGRAM AND REGULAR PROGRAM BOYS AND GIRLS ON THE PRIMARY SELF-CONCEPT INVENTORY, SPRING, 1976

Third Grade Spanish-Surnamed Pupils	TOTAL SELF-CONCEPT N	$\bar{X}$	SD
North Side			
Bilingual Class			
Boys	12	14.9	1.7
Girls	10	15.7	1.7
Regular Class			
Boys	11	14.6	2.1
Girls	15	15.3	1.7
South Side			
Bilingual Class			
Boys	10	12.7	1.9
Girls	10	16.3*	1.2
Regular Class			
Boys	15	13.7	2.9
Girls	14	14.7	2.4

* Difference is significant at the .01 level

N = Number of Pupils

TABLE XXVI

A COMPARISON OF OUTCOMES ON CULTURAL ATTITUDE SCALES
BY THIRD-GRADE BILINGUAL PROGRAM AND COMPARISON PUPILS, APRIL 1976

Cultural Attitude Scale	Group	Number of Pupils Tested and Ethnic Background					Mean Subtest Scores			
							Cultural Attitude		Cultural Knowledge	
		Anglo	Mexican-American	Puerto Rican	Other	Total	$\bar{x}$	SD	$\bar{x}$	SD
Anglo	X	0	8	3	1	12	4.16	0.49	14.08	1.44
	C	4	5	2	0	11	4.24	0.37	14.91	0.29
							t = 0.44		t = 1.95	
							df = 21		df = 21	
Mexican-American	X	0	6	2	0	8	4.34	0.49	13.12	2.03
	C	4	0	3	0	7	3.74	0.19	13.29	1.28
							t = 3.20*		t = 0.20	
							df = 13		df = 13	
Puerto Rican	X	0	4	2	0	6	3.57	0.60	14.50	0.76
	C	2	3	2	0	7	3.31	1.08	11.00	4.44
							t = 0.54		t = 2.05	
							df = 11		df = 11	
TOTAL	X	0	18	7	1	26				
TOTAL	C	10	8	7	0	25				

* Difference is significant at the .01 level

TABLE XXVII

A COMPARISON OF PRE/POST MEAN SCORES
ON THE CAREER PREPARATION SURVEY

	Pretest 1/29/76	Posttest 5/19/76	Students Tested Both Pre/Post	
	Maximum Possible Score=35			
N	10	11	N	6
$\bar{x}$	21.20	27.36	$\bar{x}$ of Difference	9.50
SD	3.63	3.87	SD of Difference	3.72
t test for differences between means	3.76*		t test for differences between paired observations	6.24*

* Difference is significant at or beyond the .01 level of confidence

TABLE XXVIII

A COMPARISON OF EMPLOYER AND STUDENT ROUNDED MEAN SCORES
ON RATINGS OF THE IMPORTANCE OF JOB FACTORS FOR ENTRY LEVEL POSITIONS

RATING SCALE: 1 = EXTREMELY IMPORTANT
2 = VERY IMPORTANT
3 = IMPORTANT
4 = OF LITTLE IMPORTANCE
5 = OF NO IMPORTANCE

FACTOR	SECRETARIAL OR CLERICAL *	SECRETARIAL OR CLERICAL **	TECHNICAL *	TECHNICAL **	SALES *	SALES **	PERSONAL SERVICE *	PERSONAL SERVICE **
Personal Appearance	2.0	2.0	3.0	3.0	1.0	1.5	2.0	2.0
H.S. Diploma	3.0	2.0	1.0	1.5	3.0	2.0	1.0	2.5
H.S. Attendance Record	2.0	2.0	1.0	2.0	3.0	2.0	2.0	2.0
H.S. Extracurricular Activities	4.0	3.5	4.0	3.5	3.0	3.0	3.0	3.5
H.S. Grades in General	2.7	2.5	1.0	2.5	3.0	2.5	1.5	3.0
H.S. Grades in Specific Areas	2.0	2.0	1.0	2.0	1.0	2.5	1.5	3.0
Previous Job Related Work Experience	2.7	2.0	4.0	2.0	1.0	2.0	2.2	2.5
Previous Unrelated Work Experience	4.5	3.0	5.0	3.0	1.0	3.0	3.2	3.5
Mastery of Basic Skills (Reading, Writing, Math)	1.3	2.0	1.0	1.5	1.0	1.5	2.0	2.0
Oral Communication Skills	3.3	2.0	3.0	2.0	2.0	1.5	2.0	2.0
Scores on Employment Tests	2.3	2.5	3.0	3.0	1.0	3.0	2.5	3.5
Completion of the Application Form (Neatness, Legibility)	2.0	2.0	4.0	2.5	2.0	2.0	1.7	2.5
Attitude Toward Work	1.3	1.5	1.0	1.5	1.0	1.5	1.2	1.5
Ability to Get Along With Others	2.0	2.0	1.0	2.0	1.0	1.5	1.2	1.5
Knowledge of a Personal Career Goal	2.0	3.0	3.0	2.5	3.0	2.5	1.7	2.5
Completion of a Non-job Related Vocational Training Program	4.0	3.5	1.0	3.5	4.0	4.0	2.2	4.0
Physical Ability	1.7	3.0	2.0	3.0	3.0	3.0	2.5	3.0
Bilingual Language Capability	2.7	4.5	4.0	4.5	2.0	4.5	2.0	4.5

* Students, N=9
** Employers, N=90

TABLE XXIX

COMPARISON OF PRE-POST SCORES ON DIAGNOSTIC ENGLISH TEST

	Number of Pupils	USAGE (40 items)							COMPOSITION		LITERATURE	
		X Pre Test		X Post Test		Difference Between Means			Percent of Pupils Who Accomplished Task			
		$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	var	t	Write 1 Paragraph		Write Summary	
									Pre	Post	Pre	Post
Level 7-8												
Kosciuszko	15	25.13	5.11	28.40	4.84	3.27	5.68	2.23	33	66	47	67
Wells	9	25.89	2.33	25.44	4.11	0.44	5.36	0.25	22	44	22	44
West	12	31.33	3.42	31.08	3.93	0.25	4.83	0.18	33	92	0	83
TOTAL	36	27.39	4.90	28.55	4.86	1.17	5.48	1.28	31	69	25	67
Level 9									Write 3 paragraphs		Association		Explication	
									Pre	Post	Pre	Post	Pre	Post
Kosciuszko	3	26.33	3.68	29.33	2.63	3.00	2.64	1.96	33	33	33	33	33	33
Wells	2	18.50	5.50	27.50	3.50	9.00	2.83	4.50	0	50	0	0	0	50
West	5	28.00	3.41	30.20	3.43	2.20	2.95	1.67	0	20	0	20	0	80
TOTAL	10	25.60	5.39	29.40	3.38	3.80	3.74	3.22*	10	30	10	20	10	50

* Difference is significant @ .05 level of confidence

TABLE XXX

PRE/POST ACHIEVEMENT BY GRADE LEVEL ON THE
PIMSLEUR TEST OF SPANISH WRITING PROFICIENCY, LEVEL A

Grade Level	Pre		Post	
	$\bar{x}$	SD	$\bar{x}$	SD
7	22.81	17.75	37.69	18.49
8	13.13	12.39	21.50	14.42
9	27.30	16.71	42.25	15.10
10	35.53	19.07	54.53	16.87
11	37.22	17.38	51.11	13.51
12	44.50	12.02	65.50	6.36

TABLE XXXI

PRE/POST PERFORMANCE ON PIMSLEUR READING AND WRITING
SPANISH PROFICIENCY TESTS, SPANISH FOR SPANISH SPEAKERS 1975-1976

School	Mean Raw Scores											
	Reading Maximum Possible Score=36						Writing Maximum Possible Score=75					
	A			C			A			C		
	N	Pre	Post	N	Pre	Post	N	Pre	Post	N	Pre	Post
Kosciuszko	60	18.83	24.07 t = 7.40*				38	23.37	36.58 t = 7.29*	22	48.91	58.77 t = 5.87*
Lincoln	15	17.47	22.47 t = 2.58**				15	25.13	40.60 t = 5.88*			
South				33	23.36	27.33 t = 3.37*	19	40.00	59.26 t = 7.09*	14	55.86	59.00 t = 2.77*
Wells	11	14.09	18.46 t = 4.28*				8	22.00	35.13 t = 2.44**	3	23.33	44.00 t = 1.65

* Pre/post difference is significant at or beyond the .01 level
** Pre/post difference is significant at or beyond the .05 level

NOTE: West Division is omitted because pupils were pre/post tested at different levels.

TABLE XXXII

PRE/POST SCORES ON BILINGUAL TYPING I TEST

Subtest	Possible Points	Language	South Division (Students Tested in English or Spanish) N	Pre $\bar{X}$	Pre SD	Post $\bar{X}$	Post SD	t	Possible Points	Lincoln/West (Students Tested in English or Spanish) N	Pre $\bar{X}$	Pre SD	Post $\bar{X}$	Post SD	t
Parts of Typewriter	22	E	19	10.95	5.83	16.79	4.26	4.66*	12	15	6.20	2.51	9.60	2.50	3.92*
	21	S	19	3.16	2.34	14.11	5.70	9.04*							
Word Division	8	E	19	3.37	0.98	2.32	1.59	2.28	8	15	4.40	1.20	4.60	1.31	0.46
	8	S	19	5.63	1.49	5.68	1.56	0.12							
Dictation	76	E	18	52.06	27.23	61.56	12.91	1.92	Pre = 41	15	31.87	7.07			
	50	S	19	38.32	9.29	39.84	6.56	1.13	Post =						
									76E	14			66.64	7.40	
									50S	1			48.00	0.00	
Proofreading	19	E	18	6.06	4.06	9.33	3.59	6.06*	17E	14	5.82	3.19	9.36	2.19	3.60*
	11	S	19	5.47	2.96	8.32	1.84	4.05*	11S	1					
Words per minute	5 minute test														
English			12			34.83	7.02						36.94	8.09	
errors				Posttest		5.67	3.04								
Spanish			12	Only		32.33	6.36								
errors						8.42	6.18								
Word Division	15	E	10	Posttest		7.90	0.83								
	15	S	10	Only		8.70	4.27								
Letter Form	Rating Satisfactory or Unsatisfactory		17	16 (94%) satisfactory											
Tabulation Form			16	7 (44%) satisfactory											

E = English
S = Spanish
N = Number of students (or pupils elementary)
$\bar{X}$ = Mean Raw Score
SD = Standard Deviation
t = Test of Difference between Means
* = Difference is significant at the .01 level

TABLE XXXIII

RESPONSES TO SECONDARY STUDENT SURVEY

Responses	Kosciuszko		Lincoln		South		Wells		West		Total	
Number of Respondents	12	87	8	5	25	49	10	6	1	1	56	148
Language of Respondents	E	S	E	S	E	S	E	S	E	S	E	S
1) Student's first language												
English	0	0	1	0	20	8	3	3	0	0	24	11
Spanish	12	87	7	4	4	39	6	3	1	1	30	134
No response			0	1	1	0	1	0			2	1
2) Language skills which improved because of Bilingual Program												
English												
Understanding	3	12	2	1	4	24	9	0	0	1	18	38
Speaking	3	13	2	1	4	30	6	3	0	0	15	47
Reading	4	10	2	1	5	25	7	3	0	1	18	40
Writing	4	8	2	1	5	17	7	3	0	0	18	29
No improvement	3	13	1	1	1	0	0	0	0	0	5	14
Spanish												
Understanding	9	75	6	5	20	33	8	6	1	0	44	119
Speaking	9	69	7	4	14	44	7	4	1	0	38	121
Reading	8	74	7	5	18	40	7	4	1	0	41	123
Writing	8	76	5	4	18	38	6	3	1	0	39	121
No improvement	0	11	0	0	1	2	0	0	0	0	1	13
3) School achievement compared with last year												
Better	6	57	5	1	11	27	6	6	1	1	29	92
Same	5	25	3	4	13	16	3	0	0	0	24	45
Worse	0	3	0	0	1	4	1	0	0	0	2	7
No response	1	2	0	0	0	2	0	0	0	0	1	4

Responses (Con't)	Kosciuszko		Lincoln		South		Wells		West		Total	
Number of Respondents	12	87	8	5	25	49	10	6	1	1	56	148
Language of Respondents	E	S	E	S	E	S	E	S	E	S	E	S
4) Learning acquired through Bilingual Program												
Latin American history	3	24	3	1	19	25	8	1	1	0	34	51
Latin American culture	3	28	1	0	18	22	9	5	1	0	32	55
English language skills	1	22	0	1	8	21	8	1	1	1	18	46
Spanish language skills	9	69	7	4	22	33	9	5	1	0	48	111
Community problems	1	49	1	1	11	18	7	5	0	0	20	73
Career opportunities	0	16	1	1	14	27	7	3	0	0	22	47
Continuing education opportunities	1	25	0	0	17	29	4	1	1	1	23	56
5) Bilingual Program assisted student in preparation for life after graduation												
Yes	4	60	5	4	12	32	9	6	1	1	31	103
A little	4	20	2	1	9	11	1	0	0	0	16	32
No	3	2	0	0	4	2	0	0	0	0	7	4
No response	1	5	1	0	0	4	0	0	0	0	2	9
6) Classes enrolled in currently:												
Spanish for Spanish Speakers	11	82	8	5	23	44	10	5	1	1	53	137
Typing	0	1	3	1	4	9	0	0	1	0	8	11
Career education	0	1	1	0	0	5	1	0	0	0	2	6
English for Latinos	1	10	0	0	0	7	9	3	1	1	11	21
7) Student would recommend above courses to a friend or relative												
Yes	6	75	7	4	22	47	9	6	1	1	45	133
No	5	10	1	0	1	1	0	0	0	0	7	11
No response	1	2	0	1	2	1	1	0	0	0	4	4

Responses (Con't)	Kosciuszko		Lincoln		South		Wells		West		Total	
Number of Respondents	12	87	8	5	25	49	10	6	1	1	56	148
Language of Respondents	E	S	E	S	E	S	E	S	E	S	E	S
8) Student would learn more if assigned homework												
Yes	6	56	2	2	14	19	8	3	1	1	31	81
No	4	27	6	2	11	26	2	3	0	0	23	58
No response	2	4	0	1	0	4	0	0	0	0	2	9
9) Post-high school graduation plans												
Work	10	47	4	2	14	21	7	3	1	1	36	74
Study	1	36	4	4	11	29	6	0	0	0	22	69
Armed services	0	8	2	0	3	1	1	0	0	0	6	9
Other	1	12	1	0	1	2	0	2	0	1	3	17
10) Student opinion of Bilingual Program:												
a) Too much emphasis on Spanish-American culture												
True	4	Missing Data	3	3	6	Not Tabbed	7	4	1	Not Tabbed	21	7
False	4		5	2	18		3	2	0		30	4
No response	4		0	0	1		0	0	0		5	0
b) Too much emphasis on Anglo-American culture												
True	1		3	2	7		4	1	0		15	3
False	6		4	2	17		6	5	1		34	7
No response	5		0	1	1		0	0	0		6	1

E = English
S = Spanish

TABLE XXXIV

RESPONSE TO PARENT SURVEY

1. Which of your child's language skills have improved this year?

Language Skills	Percent Response: English Skills	Spanish Skills	Both English and Spanish Skills
Understanding	15	22	28
Speaking	17	24	43
Reading	20	22	33
Writing	17	17	33
No Improvement	2	4	4

	Percent Response: Yes	No	No Response
2. Has your child made good progress in school work this year?	89	0	11
3. Has the Bilingual Program helped to increase your child's pride in his/her Latin-American background?	89	0	11
4. In your opinion, is the Bilingual Program accepted as a regular part of the school program?	91	0	9

5. How many bilingual parent meetings have you attended this year?

None = 11% One or two = 22% More than two = 57% No Response = 10%

6. Have you visited the school to . . .	Percent "Yes"
meet with the teacher?	76
attend a school function?	46
attend a parent meeting?	67
attend a school program?	54
observe a class?	41

7. Would your child learn more if he/she had homework in . . .	Percent Response: Yes	No
elementary?	70	4
junior high?	41	0
secondary?	35	0

8. CWBBAC stands for a Latin organization which is . . .	Percent Response
a teacher union.	4
a credit union.	0
a parent/community group.	52
a church group.	0
I don't know.	30
No Response	14